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WAGES AND HOURS OF LABOR SERIES

**WAGES AND HOURS OF LABOR IN  
FOUNDRIES AND MACHINE SHOPS  
1927**



DECEMBER, 1928

UNITED STATES  
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1929



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## WAGES AND HOURS OF LABOR IN FOUNDRIES AND MACHINE SHOPS IN 1927

### INTRODUCTION AND SUMMARY

This bulletin presents the results of a study of wages and hours of labor by occupations in representative foundries and machine shops in the United States in the summer of 1927. It was not practicable for the bureau to make a complete census of all plants, but data were obtained from a sufficient number in each State in which the industry is of material importance to represent fairly the conditions in those States and in the country as a whole. The 28 States included in the study were determined by the number of wage earners reported in the industry by the Census of Manufactures of the United States, each having a sufficient number of wage earners in the industry to warrant inclusion. In the States not included in the report there are, according to the Census of Manufactures, only 5 per cent of the total number of wage earners employed in these closely correlated industries.

Average hours and earnings for 1927 are presented in this report by occupations for a total of 38,943 wage earners in 417 foundries and 86,779 wage earners in 526 machine shops. Summary figures for 1923 for 32,166 wage earners in 351 foundries and 58,914 wage earners in 429 machine shops, and for 1925 for 40,393 wage earners in 413 foundries and 86,274 wage earners in 511 machine shops are shown in Table 1 by occupations in comparison with 1927 averages. The 1923 figures were drawn from Bulletin No. 362 and those for 1925 from Bulletin No. 422.

Average full-time hours per week for males in foundries, for the United States as a whole, were 52.4 in 1923, 51.5 in 1925, and 51.1 in 1927, and in machine shops were 50.8 in 1923, 50.4 in 1925, and 50.1 in 1927, thus showing a slight decrease in full-time hours each year over the preceding 2-year period. The averages for males are the same as for both sexes combined, due to the fact that in foundries only 310 of the 32,166 employees covered in 1923, 478 of the 40,393 employees covered in 1925, and 439 of the 38,943 employees covered in 1927 were females, and that in machine shops only 408 of the 58,914 employees included in 1923, 1,075 of the 86,274 employees covered in 1925, and 1,470 of the 86,779 employees covered in 1927 were females. The average hours for females in foundries were 49.3 per week in 1923, and 49 in 1925 and 1927, and in machine shops 49.1 per week in 1923, 49.3 in 1925, and 48.9 in 1927. In 1927 the average full-time hours per week by occupations for males in foundries range from 49.9 for molders, hand, floor, to 52.6 for crane operators, and those of females range from 48.4 for core makers to 50.6 for the group designated as "other employees."

Average earnings per hour in foundries for males in all occupations combined were 56 cents in 1923, 61.2 cents in 1925, and 62.6 cents in 1927; for females, 40.4 cents in 1923, 42.7 cents in 1925, and 45.9 cents in 1927; and for both sexes in all occupations combined 55.8 cents in 1923, 61 cents in 1925, and 62.4 cents in 1927. Average earnings per hour by occupations for males in 1927 range from 48.4 cents for floor molders' helpers, to 83 cents for pattern makers, and for females were 38 cents for other employees and 49.1 cents for core-makers.

In machine shops average earnings per hour for males in all occupations combined were 56 cents in 1923, 60.4 cents in 1925, and 62.9 cents in 1927; for females, 36.6 cents in 1923, 42 cents in 1925, and 40.3 cents in 1927; and for both sexes in all occupations combined, 55.9 cents in 1923, 60.2 cents in 1925, and 62.5 cents in 1927. Average earnings per hour by occupations for males in 1927 range from 45.6 cents for laborers to 84.1 cents for pattern makers. Pattern makers in machine shops were included with "other skilled employees" in 1923 and 1925. Averages for females in 1927 range from 30.9 cents per hour for the group designated as "other employees" to 54.9 cents for turret lathe hands and operators.

Average full-time earnings per week in foundries for males in all occupations combined were \$29.34 in 1923, \$31.52 in 1925, and \$31.99 in 1927; for females, \$19.92 in 1923, \$20.92 in 1925, and \$22.49 in 1927; and for both sexes in all occupations combined or the industry average full-time earnings were \$29.24 per week in 1923, \$31.42 in 1925, and \$31.89 in 1927. Average full-time earnings per week by occupations for males in 1927 range from \$24.78 for floor molders' helpers to \$41.75 for pattern makers. In machine shops average full-time earnings per week for males in all occupations combined were \$28.45 in 1923, \$30.44 in 1925, and \$31.51 in 1927; for females, \$17.97 in 1923, \$20.71 in 1925, and \$19.71 in 1927; and for both sexes or the industry full-time earnings were \$28.40 per week in 1923, \$30.34 in 1925, and \$31.31 in 1927. Average full-time earnings per week by occupations for males in 1927 range from \$22.98 for laborers to \$41.71 for pattern makers, and for females range from \$16.27 for other precision machine hands and operators to \$27.45 for turret lathe hands and operators.

TABLE 1.—Average hours and earnings, 1923, 1925, and 1927, by occupation and sex

FOUNDRIES

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Chippers and rough grinders.....	Male.....	1923	319	2,923	52.5	\$0.465	\$24.41
	do.....	1925	383	4,110	51.5	.521	26.83
	do.....	1927	379	3,857	51.1	.537	27.44
Core makers.....	Female.....	1927	1	(1)	(1)	(1)	(1)
	Male.....	1923	345	2,526	51.4	.690	35.47
	do.....	1925	393	3,067	50.3	.734	36.92
	do.....	1927	401	3,040	50.4	.755	38.05
	Female.....	1923	22	240	49.2	.431	21.21
	do.....	1925	43	353	48.6	.444	21.58
	do.....	1927	41	324	48.4	.491	23.76

<sup>1</sup> Included in total.

TABLE 1.—Average hours and earnings, 1923, 1925, and 1927, by occupation and sex—Continued

## FOUNDRIES—Continued

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Crane operators.....	Male.....	1923	197	593	53.5	\$0.522	\$27.93
	do.....	1925	236	772	52.7	.562	29.62
	do.....	1927	242	875	52.6	.575	30.25
Cupola tenders.....	do.....	1923	342	556	52.4	.546	28.61
	do.....	1925	380	567	51.9	.635	32.96
	do.....	1927	393	602	51.8	.620	32.12
Laborers.....	do.....	1923	343	9,265	53.5	.428	22.90
	do.....	1925	389	10,931	52.5	.481	25.25
	do.....	1927	401	11,017	52.1	.491	25.58
	Female.....	1923	8	68	49.4	.316	15.61
	do.....	1925	17	125	50.2	.382	19.18
Molders, hand, bench.....	Male.....	1923	262	2,379	51.3	.687	35.24
	do.....	1925	325	2,363	50.2	.768	38.55
	do.....	1927	324	2,063	50.5	.789	39.84
Molders, hand, floor.....	do.....	1923	346	4,904	51.2	.729	37.32
	do.....	1925	401	5,612	50.4	.802	40.42
	do.....	1927	402	5,375	49.9	.820	40.92
Molders, machine.....	do.....	1923	161	1,993	51.9	.678	35.19
	do.....	1925	229	3,140	50.1	.733	36.72
	do.....	1927	220	3,102	50.4	.753	37.95
Molders' helpers, floor.....	do.....	1923	234	1,986	52.2	.433	22.60
	do.....	1925	285	2,642	51.8	.460	25.83
	do.....	1927	247	1,820	51.2	.484	24.78
Pattern makers.....	do.....	1923	283	1,314	51.1	.750	38.38
	do.....	1925	346	1,827	50.4	.804	40.52
	do.....	1927	259	1,512	50.3	.830	41.75
Rough carpenters.....	do.....	1923	261	680	52.0	.534	27.77
	do.....	1925	293	634	51.1	.591	30.20
	do.....	1927	292	625	50.8	.609	30.94
Sand blasters <sup>2</sup> .....	do.....	1923	175	362	51.7	.591	30.55
Other employees.....	do.....	1923	304	2,737	53.6	.503	26.96
	do.....	1925	378	4,250	52.7	.576	30.36
	do.....	1927	365	4,254	51.0	.587	29.94
	Female.....	1923	2	2	51.0	.205	10.46
	do.....	1925	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
	do.....	1927	15	107	50.6	.380	19.23
All occupations.....	Male.....	1923	351	31,856	52.4	.560	29.34
	do.....	1925	413	39,915	51.5	.612	31.52
	do.....	1927	417	38,504	51.1	.626	31.99
	Female.....	1923	22	310	49.3	.404	19.92
	do.....	1925	43	478	49.0	.427	20.92
	do.....	1927	42	439	49.0	.459	22.49
All occupations, male and female.....		1923	351	32,166	52.4	.558	29.24
		1925	413	40,393	51.5	.610	31.42
		1927	417	38,943	51.1	.624	31.89

## MACHINE SHOPS

Assemblers.....	Male.....	1923	310	5,681	50.6	\$0.575	\$29.10
	do.....	1925	306	7,151	49.6	.634	31.45
	do.....	1927	368	8,019	50.1	.653	32.72
	Female.....	1923	6	54	50.2	.350	17.57
	do.....	1925	9	150	50.7	.444	22.51
	do.....	1927	14	120	49.5	.423	20.94
Blacksmiths.....	Male.....	1923	345	797	50.8	.678	34.44
	do.....	1925	395	885	50.2	.717	35.99
	do.....	1927	406	845	50.2	.726	36.45
Blacksmiths' helpers.....	do.....	1923	282	945	50.8	.489	24.84
	do.....	1925	298	857	50.5	.504	25.45
	do.....	1927	291	722	50.2	.525	26.36
Boring-mill hands and operators.....	do.....	1923	271	1,455	50.8	.660	33.53
	do.....	1925	341	2,135	50.4	.683	34.68
	do.....	1927	354	2,208	50.7	.727	36.86
Buffers and polishers <sup>4</sup> .....	do.....	1923	109	580	49.4	.699	34.53
	Female.....	1927	3	6	49.0	.450	22.05

<sup>2</sup> Included with "Other employees" in 1923 and 1925.<sup>3</sup> Included with laborers.<sup>4</sup> Included with "Other machine hands and operators" in 1923 and 1925.

TABLE 1.—Average hours and earnings: 1923, 1925, and 1927, by occupation and sex—Continued

## MACHINE SHOPS—Continued

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Crane operators.....	Male	1923	167	525	51.1	\$0.501	\$25.60
	do	1925	214	754	50.7	.524	26.57
	do	1927	218	865	51.2	.540	27.65
	Female	1927	2	4	51.3	.431	22.11
Drill-press hands and operators.....	Male	1923	350	3,634	50.8	.527	26.77
	do	1925	423	5,012	50.4	.579	29.18
	do	1927	433	4,759	50.1	.605	30.31
	Female	1923	5	33	49.5	.410	20.30
	do	1925	16	93	49.0	.477	23.37
	do	1927	22	121	49.4	.448	22.13
Fitters and bench hands.....	Male	1923	271	4,721	49.9	.616	30.74
	do	1925	388	8,157	49.8	.643	32.02
	do	1927	332	6,661	49.5	.662	32.77
	Female	1923	4	60	49.0	.420	20.58
	do	1925	14	146	49.3	.468	23.07
	do	1927	20	341	49.0	.411	20.14
Grinding-machine hands and operators....	Male	1923	221	1,255	50.5	.586	29.59
	do	1925	267	2,016	50.3	.637	32.04
	do	1927	298	2,285	50.1	.668	33.47
	Female	1923	2	2	52.0	.310	16.12
	do	1925	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
	do	1927	5	15	48.6	.444	21.58
Laborers.....	Male	1923	375	8,355	51.1	.418	21.35
	do	1925	439	9,833	50.6	.456	23.07
	do	1927	459	8,342	50.4	.456	22.98
	Female	1923	5	30	48.2	.323	15.57
	do	1925	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
	do	1927	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Lathe hands and operators, engine.....	Male	1923	347	4,421	50.9	.633	32.22
	do	1925	401	5,856	50.3	.663	33.35
	do	1927	414	5,964	50.2	.695	34.89
	Female	1927	2	7	48.4	.385	18.63
Lathe hands and operators, turret.....	Male	1923	251	2,147	50.5	.610	30.81
	do	1925	328	3,393	50.2	.647	32.48
	do	1927	343	3,167	50.0	.675	33.75
	Female	1925	3	27	49.9	.488	24.35
	do	1927	8	46	50.0	.549	27.45
Machinists.....	Male	1923	331	2,952	50.0	.683	34.15
	do	1925	374	3,820	49.9	.702	35.03
	do	1927	395	3,704	49.5	.728	36.04
Machinists' and toolmakers' helpers.....	do	1923	251	1,616	50.4	.464	23.39
	do	1925	262	1,641	49.8	.494	24.60
	do	1927	269	1,671	50.1	.510	25.55
Milling-machine hands and operators.....	do	1923	268	1,938	50.0	.605	30.25
	do	1925	339	2,925	49.7	.653	32.45
	do	1927	343	2,872	49.7	.685	34.04
	Female	1925	7	32	49.4	.497	24.55
	do	1927	3	17	48.8	.489	23.86
Packers and craters.....	Male	1923	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
	do	1925	274	1,488	50.5	.520	26.26
	do	1927	288	1,793	50.1	.537	26.90
	Female	1923	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
	do	1925	10	68	49.7	.354	17.59
	do	1927	7	44	49.5	.389	19.26
Pattern makers <sup>6</sup> .....	Male	1927	235	1,228	49.6	.841	41.71
Planer hands and operators.....	do	1923	272	1,339	50.6	.663	33.55
	do	1925	327	1,838	50.2	.705	35.39
	do	1927	339	1,818	50.5	.742	37.47
Screw-machine hands and operators.....	do	1923	177	1,047	50.6	.564	28.54
	do	1925	215	1,482	49.8	.643	32.02
	do	1927	213	1,520	49.8	.664	33.07
	Female	1927	3	10	48.7	.435	21.18
Sheet-metal machine operators <sup>7</sup> .....	Male	1927	137	867	50.2	.603	30.27
	Female	1927	12	167	48.7	.420	20.45
Toolmakers.....	Male	1923	274	1,661	50.4	.663	34.93
	do	1925	346	2,573	50.0	.727	36.35
	do	1927	354	2,863	49.7	.756	37.57

<sup>3</sup> Included with laborers.<sup>6</sup> Included with "Other employees."<sup>6</sup> Included with "Other skilled employees" in 1923 and 1925.<sup>7</sup> Bending, flanging, and rolling machines, punch presses, and shears. These were included with "Other machine hands and operators" in 1923 and 1925.



TABLE 1.—Average hours and earnings, 1923, 1925, and 1927, by occupation and sex—Continued

## MACHINE SHOPS—Continued

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Other machine hands and operators.....	do.....	1923	289	2, 670	50.5	\$0.556	\$28.08
	do.....	1925	371	4, 066	50.5	.630	31.82
	Female.....	1923	6	76	48.2	.422	20.34
	do.....	1925	16	201	48.8	.441	21.52
Other precision machine hands and operators. <sup>*</sup>	Male.....	1927	316	2, 001	50.5	.659	33.28
	Female.....	1927	8	122	49.3	.330	16.27
	Male.....	1923	356	5, 312	50.9	.618	31.46
	do.....	1925	458	9, 602	50.4	.647	32.61
Other skilled employees.....	do.....	1927	468	11, 113	50.1	.650	32.57
	Female.....	1923	4	36	51.3	.313	16.06
	do.....	1925	13	215	48.9	.372	18.19
	do.....	1927	27	317	47.7	.401	19.13
Other employees.....	Male.....	1923	386	6, 035	52.0	.459	23.87
	do.....	1925	498	9, 715	52.5	.514	26.99
	do.....	1927	487	9, 352	50.3	.526	26.46
	Female.....	1923	8	117	48.7	.325	15.83
	do.....	1925	23	143	49.2	.352	17.32
	do.....	1927	20	133	49.3	.309	15.23
All occupations.....	Male.....	1923	429	58, 506	50.8	.560	28.45
	do.....	1925	511	85, 199	50.4	.604	30.44
	do.....	1927	526	85, 309	50.1	.629	31.51
	Female.....	1923	19	408	49.1	.366	17.97
	do.....	1925	36	1, 075	49.3	.420	20.71
	do.....	1927	50	1, 470	48.9	.403	19.71
All occupations, male and female.....		1923	429	58, 914	50.8	.559	28.40
		1925	511	86, 274	50.4	.602	30.34
		1927	526	86, 779	50.1	.625	31.31

<sup>\*</sup> Includes the following machines: Broacher, centering, gear hobber, gear cutter, hobber, key seater, shaper, slotter, speed lathes, special lathes, threader, and other precision machines. These were included with "Other machine hands and operators" in 1923 and 1925.

Table 2 presents for all wage earners of each sex in each State, in foundries and in machine shops, the number of establishments and wage earners included in the 1927 study, average full-time hours per week, average earnings per hour, and average full-time earnings per week.

Average full-time hours per week for males in foundries in 10 States range from 45.3 to 49.7 per week and in 18 States from 50.5 to 54.5 per week, and in machine shops in 12 States from 45 to 49.8 per week, and in 15 States from 50.1 to 54.3 per week. The average full-time hours for females in foundries in 8 States range from 45.6 to 49.2 per week and in 3 States from 50 to 51.6 per week; in machine shops in 5 States the range is from 43 to 49.3 per week and in 3 States from 50 to 51.6 per week.

Average earnings per hour for males in foundries in 6 States range from 39.1 to 48.1 cents, in 7 States from 50 to 59.6 cents, in 14 States from 61.1 to 69.3 cents, and the average in 1 State is 74 cents. In machine shops the average in 1 State is 43.3 cents an hour; the averages in 12 States range from 51.5 to 59.4 cents, in 11 States from 60.2 to 68.5 cents, and in 3 States from 70.1 to 74.6 cents. Average earnings per hour for females in foundries in 8 States range from 40.5 to 47.4 cents and in 3 States from 50.1 to 53.7 cents, and in machine shops in 5 States range from 34.5 to 39.8 cents and in 3 States range from 43.4 to 46.7 cents per hour.

Average full-time earnings per week for males in foundries in 6 States range from \$21.31 to \$24.51, in 6 States from \$25.55 to \$29.98, and in 16 States range from \$30.90 to \$34.71 per week. In machine shops the average in 1 State is \$23.51; the averages in 14 States range from \$26.20 to \$29.94, and in 12 States from \$31.14 to \$34.32 per week. The average earnings for females in foundries in 10 States range from \$19.89 to \$24.25, and in 1 State the average is \$26.21. In machine shops average full-time earnings per week in 5 States range from \$17.01 to \$19.14 and in 3 States range from \$20.18 to \$23.44 per week.

TABLE 2.—*Number of establishments and of wage earners, and average hours and earnings, 1927, by sex and State*

**MALES**

State	Foundries					Machine shops				
	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Alabama.....	4	265	54.1	\$0.453	\$24.51	6	365	54.2	\$0.543	\$29.43
California.....	21	1,065	46.9	.740	34.71	27	2,239	46.0	.746	34.32
Colorado.....	3	266	47.0	.577	27.12					
Connecticut.....	16	1,537	52.2	.592	30.90	19	3,416	50.9	.639	32.53
Georgia.....	7	493	54.5	.391	21.31	8	336	54.3	.433	23.51
Illinois.....	28	2,835	49.5	.669	33.12	38	10,086	49.7	.685	34.04
Indiana.....	16	2,419	50.9	.589	29.98	16	2,944	50.9	.566	28.81
Iowa.....	11	755	53.2	.615	32.72	9	773	52.8	.515	27.19
Kansas.....	9	228	53.9	.474	25.55	10	309	51.1	.518	26.47
Kentucky.....	7	159	48.9	.500	24.45	9	407	47.3	.554	26.20
Louisiana.....	5	219	49.7	.481	23.91	6	262	51.5	.866	29.15
Maine.....	4	182	50.8	.589	29.92	4	466	47.8	.555	26.53
Maryland.....	8	486	52.1	.554	28.86	8	725	47.7	.605	28.86
Massachusetts.....	28	3,141	49.6	.677	33.58	40	7,707	48.9	.611	29.88
Michigan.....	39	4,389	51.7	.640	33.09	36	5,626	51.2	.627	32.10
Minnesota.....	5	439	53.2	.596	31.71	6	656	50.1	.593	29.71
Missouri.....	12	667	51.4	.629	32.33	21	1,343	51.3	.576	29.55
New Hampshire.....	8	195	49.6	.635	31.50	9	657	50.2	.638	32.03
New Jersey.....	17	2,380	52.0	.627	32.60	31	4,016	49.5	.647	32.03
New York.....	25	2,747	50.5	.657	33.18	26	8,740	48.5	.662	32.11
Ohio.....	52	4,550	52.2	.630	32.89	89	13,980	50.3	.619	31.14
Oregon.....	7	224	45.3	.659	29.85	6	313	45.0	.701	31.55
Pennsylvania.....	40	5,086	51.1	.625	31.94	45	11,977	51.2	.622	31.85
Rhode Island.....	8	731	51.5	.611	31.47	13	1,851	50.4	.594	29.94
Tennessee.....	7	419	49.5	.470	23.27	8	458	49.2	.540	26.67
Texas.....	10	439	51.2	.470	24.06	14	853	49.8	.531	26.44
Washington.....	7	271	46.9	.693	32.50	7	481	47.2	.714	33.70
Wisconsin.....	13	1,917	52.3	.636	33.26	15	4,333	52.6	.602	31.67
Total.....	417	38,504	51.1	.626	31.99	526	85,309	50.1	.629	31.51

**FEMALES**

Connecticut.....						1	(1)	(1)	(1)	(1)
Illinois.....	4	60	48.8	\$0.537	\$26.21	2	(1)	47	51.6	\$0.391
Indiana.....	2	59	50.0	.416	20.80	1	(1)	(1)	(1)	(1)
Iowa.....	1	(1)	(1)	(1)	(1)					
Kentucky.....	2	5	47.0	.446	20.96	1	(1)	(1)	(1)	(1)
Maine.....						1	(1)	(1)	(1)	(1)
Massachusetts.....	2	7	48.0	.474	22.75	8	84	47.9	.434	20.79
Michigan.....	8	84	51.6	.434	22.39	16	345	50.2	.467	23.44
Minnesota.....	1	(1)	(1)	(1)	(1)					
New Hampshire.....						1	(1)	(1)	(1)	(1)
New Jersey.....	4	57	49.2	.451	22.19	2	81	50.0	.377	18.85
New York.....	7	63	45.6	.501	22.85	3	277	48.1	.389	18.71
Ohio.....	2	23	49.0	.406	19.89	6	287	49.3	.345	17.01
Pennsylvania.....	3	33	48.7	.419	20.41	5	192	48.1	.398	19.14
Rhode Island.....	2	10	50.6	.405	20.49	2	67	43.0	.445	19.14
Wisconsin.....	4	31	46.9	.517	24.25	1	(1)	(1)	(1)	(1)
Total.....	42	439	49.0	.459	22.49	50	1,470	48.9	.403	19.71

<sup>1</sup> Included in total.

TABLE 2.—*Number of establishments and of wage earners, and average hours and earnings, 1927, by sex and State—Continued*

## MALES AND FEMALES

State	Foundries					Machine shops				
	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Alabama.....	4	265	54.1	\$0.453	\$24.51	6	365	54.2	\$0.543	\$29.43
California.....	21	1,065	46.9	.740	34.71	27	2,239	46.0	.746	34.32
Colorado.....	3	266	47.0	.577	27.12					
Connecticut.....	16	1,537	52.2	.592	30.90	19	3,419	50.9	.639	32.53
Georgia.....	7	495	54.5	.391	21.31	8	336	54.3	.433	23.51
Illinois.....	28	2,895	49.5	.666	32.97	38	10,133	49.7	.684	33.99
Indiana.....	16	2,478	50.9	.586	29.83	16	2,976	50.8	.664	28.65
Iowa.....	11	758	53.2	.614	32.06	9	773	52.8	.615	27.19
Kansas.....	9	228	53.9	.474	25.55	10	309	51.1	.618	26.47
Kentucky.....	7	164	48.8	.498	24.30	9	429	47.4	.640	25.60
Louisiana.....	5	219	49.7	.481	23.91	6	252	51.5	.566	29.15
Maine.....	4	182	50.8	.589	29.92	4	467	47.8	.554	26.48
Maryland.....	8	486	52.1	.554	28.86	8	725	47.7	.605	28.86
Massachusetts.....	28	3,148	49.6	.677	33.58	40	7,791	48.9	.609	29.78
Michigan.....	39	4,473	51.7	.636	32.88	36	5,971	51.2	.619	31.69
Minnesota.....	5	443	53.1	.694	31.54	6	656	50.1	.593	29.71
Missouri.....	12	667	51.4	.629	32.33	21	1,343	51.3	.576	29.55
New Hampshire.....	8	195	49.6	.635	31.50	9	685	50.2	.629	31.58
New Jersey.....	17	2,437	51.9	.623	32.33	31	4,097	49.5	.642	31.78
New York.....	25	2,810	50.4	.654	32.96	26	9,017	48.5	.654	31.72
Ohio.....	52	4,573	52.2	.629	32.83	89	14,267	50.3	.614	30.88
Oregon.....	7	224	45.3	.659	29.85	6	313	45.0	.701	31.55
Pennsylvania.....	40	5,119	51.1	.624	31.89	45	12,169	51.1	.619	31.63
Rhode Island.....	8	741	51.5	.608	31.31	13	1,918	50.2	.590	29.62
Tennessee.....	7	419	49.5	.470	23.27	8	458	49.2	.540	26.57
Texas.....	10	439	51.2	.470	24.06	14	853	49.8	.531	26.44
Washington.....	7	271	46.9	.693	32.50	7	481	47.2	.714	33.70
Wisconsin.....	13	1,948	52.2	.634	33.09	15	4,337	52.6	.602	31.67
Total.....	417	38,943	51.1	.624	31.89	526	86,779	50.1	.625	31.31

The above table shows that average earnings per hour and average full-time earnings per week for machine shop wage earners in Alabama, Georgia, Louisiana, Tennessee, and Texas are higher than the average for foundry wage earners in these five States, which condition is reversed in several of the Northern States, such as Indiana, Maine, Massachusetts, Michigan, New Hampshire, Ohio, Pennsylvania, Rhode Island, and Wisconsin.

The reason for the above difference is that in the five Southern States many of the shops covered have few or no "machine hands and operators," or specialists. As a rule all-round machinists operate the various kinds of machines used in doing machine-shop work and also do the fitting and assembling of the various parts of machinery, or in repairing machinery, while in the northern industrial States the machines are operated largely by "machine hands and operators" or specialists, practically all of them being competent to operate only one of the various kinds of machines found in representative machine shops, and most of them at a wage rate less than that of machinists. An official of one of the machine shops in one of the Southern States said: "This company does not hire employees as machine hands and operators. That classification is found in the large machine shops in the North and East. In this State a machinist is an all-round hand, as the shops do general

repairing." Another said: "All machinists in our shop are first-class mechanics, capable of operating, setting up, and repairing machinery. We have no specialists." The tables of this bulletin show that while the total number of machine-shop wage earners covered in the five Southern States are only 2.6 per cent of the total covered in all States the machinists covered in the five States are 8.5 per cent of the total number of machinists covered in all States, and that the average earnings per hour for the machinists covered in the five Southern States are \$0.766 compared with \$0.728 for all machinists in all States covered. Further, in the five Southern States foundry wage earners include a very large percentage of unskilled and semi-skilled help at rates much less than that paid for the same class of work by the large foundries in the Northern and Eastern States.

Average and classified earnings per hour are presented in Table 3 for the employees in 8 of the principal occupations in foundries, and for those in 14 of the principal occupations in machine shops for 1923, 1925, and 1927, and for 1 occupation (pattern makers) in machine shops for 1927 only. The figures are shown in detail for each State for 1927 in Table B, page 53. These occupations were selected as representative of all of the occupations in the industry. They include unskilled, semiskilled, and skilled employees, and represent 80 per cent of the wage earners in foundries and 66 per cent of those in machine shops. The classification of employees in the other occupations has not been made, because it would to a great extent be merely a repetition of the spread or variation within these principal occupations.

The average earnings per hour of employees in the various occupations are shown in addition to the distribution and were computed by dividing the combined earnings of all employees in the occupation during the pay-roll period covered by the combined hours worked.

Earnings per hour of employees in each occupation for which data are shown were higher in 1925 than in 1923, and all show an increase in 1927 over 1925 except laborers in machine shops. The increase in some occupations in 1927 over 1925 is small and in others it is of considerable importance. The increases range from 1 cent per hour for laborers in foundries and 1.6 cents for machinists and toolmakers' helpers in machine shops to 4.7 cents for female core makers in foundries and 3.9 cents per hour for boring-mill hands and operators in machine shops.

TABLE 3.—Average and classified earnings per hour in 8 specified occupations in foundries and 15 in machine shops, 1923, 1925, and 1927, by sex

FOUNDRIES																
Occupation	Sex	Year	Number of establishments	Number of employees	Average earnings per hour	Per cent of employees whose earnings per hour were—										
						Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under \$1
Chippers and rough grinders	Male	1923	319	2,923	\$0.465	1	1	2	6	12	42	25	7	2	1	(1)
	do.	1925	383	4,110	.521	(1)	1	1	2	6	34	33	13	5	3	1
	do.	1927	379	3,857	.537	(1)	1	(1)	2	4	31	36	16	7	2	1
Core makers	do.	1923	345	2,526	.690		(1)	(1)	1	1	9	19	22	26	17	4
	do.	1925	393	3,067	.734		(1)	(1)	(1)	1	6	13	19	20	19	14
	do.	1927	401	3,040	.755		(1)	(1)	1	1	4	12	16	20	20	16
	Female	1923	22	240	.431	3	4	10	12	15	25	20	8	2	1	(1)
	do.	1925	43	353	.444	1	5	6	10	16	30	20	7	2	1	(1)
	do.	1927	41	324	.491		2	9	9	10	28	22	11	4	3	2
Laborers <sup>1</sup>	Male	1923	343	9,265	.428											
	do.	1925	389	10,931	.481	(1)	1	2	4	8	47	29	6	2	2	1
	do.	1927	401	11,017	.491	(1)	(1)	2	3	5	45	32	7	3	2	(1)
Molders, hand, bench	do.	1923	262	2,379	.687	(1)	(1)	(1)	1	1	5	26	27	14	4	(1)
	do.	1925	325	2,363	.768	(1)	(1)	1	(1)	1	3	12	21	19	16	2
	do.	1927	324	2,063	.789	(1)	(1)	(1)	(1)	1	3	10	19	20	16	10
Molders, hand, floor	do.	1923	346	4,904	.729	(1)		(1)	(1)	(1)	2	11	25	31	22	5
	do.	1925	401	5,612	.802			(1)	(1)	(1)	1	6	18	22	22	19
	do.	1927	402	5,375	.820	(1)		(1)	(1)	(1)	2	6	14	19	25	22
Molders, machine <sup>2</sup>	do.	1923	161	1,993	.678											
	do.	1925	229	3,140	.733			(1)	(1)	1	5	16	22	22	17	10
	do.	1927	220	3,162	.753	(1)	(1)	(1)	(1)	1	5	13	20	21	18	14
Molders' helpers, floor <sup>2</sup>	do.	1923	234	1,986	.433											
	do.	1925	285	2,642	.460	1	4	3	7	8	38	28	8	3	1	(1)
	do.	1927	247	1,820	.484		2	2	9	7	33	29	12	4	1	(1)
Pattern makers	do.	1923	283	1,314	.750				(1)		2	10	26	25	15	14
	do.	1925	346	1,827	.804						1	5	18	22	23	18
	do.	1927	259	1,512	.830					(1)	1	4	12	22	27	20
MACHINE SHOPS																
Assemblers <sup>2</sup>	Male	1923	310	5,681	\$0.575											
	do.	1925	306	7,151	.634	(1)	(1)	(1)	(1)	1	11	27	31	18	8	2
	do.	1927	368	8,019	.653			(1)	(1)	1	9	24	30	22	9	3
Boring-mill hands and operators <sup>2</sup>	do.	1923	271	1,455	.660											
	do.	1925	341	2,135	.688	(1)	(1)		(1)	(1)	5	15	31	29	14	4
	do.	1927	354	2,208	.727						3	11	26	30	21	6

<sup>1</sup> Less than 1 per cent.<sup>2</sup> Not classified in 1923.

TABLE 3.—Average and classified earnings per hour in 8 specified occupations in foundries and 15 in machine shops, 1923, 1925, and 1927,  
by sex—Continued  
MACHINE SHOPS—Continued

Occupation	Sex	Year	Number of establishments	Number of employees	Average earnings per hour	Per cent of employees whose earnings per hour were—														
						Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and over	
Drill-press hands and operators.....	Male.....	1923	350	3,634	\$0.527	(1)	(1)	1	4	6	31	30	18	6	2	(1)	(1)	—	—	
do.....	do.....	1925	423	5,012	.579	(1)	(1)	1	1	3	19	33	24	13	4	1	(1)	(1)	—	
do.....	do.....	1927	433	4,759	.605	—	(1)	(1)	1	3	14	29	28	17	6	1	(1)	(1)	—	
Fitters and bench hands.....	do.....	1923	271	4,721	.616	(1)	(1)	—	1	2	16	28	25	16	10	1	(1)	(1)	(1)	
do.....	do.....	1925	388	8,157	.643	—	(1)	(1)	(1)	2	9	25	29	20	11	2	1	(1)	(1)	
do.....	do.....	1927	332	6,661	.662	—	(1)	(1)	(1)	1	6	21	31	25	10	3	1	(1)	(1)	
Grinding-machine hands and operators <sup>1</sup> .....	do.....	1923	221	1,255	.586	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
do.....	do.....	1925	267	2,016	.637	—	—	—	1	1	11	8	27	31	16	10	2	1	(1)	
do.....	do.....	1927	298	2,285	.668	—	(1)	(1)	(1)	1	8	20	30	22	13	4	1	(1)	(1)	
Laborers <sup>1</sup> .....	do.....	1923	375	8,355	.418	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
do.....	do.....	1925	439	9,833	.456	(1)	1	1	3	10	58	23	4	2	(1)	(1)	(1)	—	—	
do.....	do.....	1927	459	8,342	.456	(1)	1	1	4	8	56	26	4	1	(1)	(1)	(1)	—	—	
Lathe hands and operators, engine.....	do.....	1923	347	4,421	.633	—	—	(1)	1	2	11	27	29	20	7	2	1	(1)	(1)	
do.....	do.....	1925	401	5,856	.663	—	(1)	(1)	(1)	1	6	22	32	23	12	2	1	(1)	(1)	
do.....	do.....	1927	414	5,964	.695	—	—	(1)	(1)	(1)	5	16	29	28	16	4	2	(1)	(1)	
Lathe hands and operators, turret <sup>1</sup> .....	do.....	1923	251	2,147	.610	—	—	(1)	—	—	—	—	—	—	—	—	—	—	—	
do.....	do.....	1925	328	3,393	.647	—	—	(1)	(1)	1	10	25	30	20	11	2	1	(1)	(1)	
do.....	do.....	1927	343	3,167	.675	—	—	(1)	(1)	1	9	19	25	24	15	4	1	(1)	(1)	
Machinists.....	do.....	1923	331	2,952	.683	—	—	(1)	(1)	(1)	3	15	36	28	13	3	1	(1)	(1)	
do.....	do.....	1925	374	3,820	.702	—	—	—	—	(1)	2	13	35	29	16	4	2	(1)	(1)	
do.....	do.....	1927	395	3,794	.728	—	—	—	—	(1)	1	9	31	32	18	5	5	(1)	(1)	
Machinists' and toolmakers' helpers <sup>1</sup> .....	do.....	1923	251	1,616	.464	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
do.....	do.....	1925	262	1,641	.494	(1)	1	3	8	35	39	11	2	(1)	(1)	(1)	(1)	—	—	
do.....	do.....	1927	269	1,671	.510	(1)	1	2	4	37	37	15	3	(1)	(1)	(1)	(1)	—	—	
Milling-machine hands and operators.....	do.....	1923	268	1,938	.605	(1)	1	1	2	17	28	27	16	7	1	(1)	—	—	—	
do.....	do.....	1925	339	2,925	.653	—	—	(1)	1	8	25	31	20	12	2	2	1	(1)	(1)	
do.....	do.....	1927	343	2,872	.685	—	—	(1)	(1)	1	6	18	28	27	13	5	1	(1)	(1)	
Pattern makers <sup>1</sup> .....	do.....	1927	235	1,228	.841	—	—	—	—	(1)	3	10	22	29	20	13	3	(1)	(1)	
Planer hands and operators.....	do.....	1923	272	1,339	.663	—	(1)	(1)	(1)	8	23	32	23	10	2	2	(1)	(1)	—	
do.....	do.....	1925	327	1,838	.705	—	—	(1)	(1)	3	16	31	27	15	4	3	(1)	(1)	(1)	
do.....	do.....	1927	339	1,818	.742	—	—	—	(1)	2	11	26	28	19	8	4	(1)	(1)	(1)	
Screw-machine hands and operators <sup>1</sup> .....	do.....	1923	177	1,047	.564	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
do.....	do.....	1925	215	1,482	.643	(1)	(1)	(1)	(1)	9	27	31	21	8	2	1	(1)	(1)	(1)	
do.....	do.....	1927	213	1,520	.664	—	(1)	(1)	1	7	22	29	26	10	3	1	(1)	(1)	(1)	
Toolmakers <sup>1</sup> .....	do.....	1923	274	1,661	.693	—	—	—	—	(1)	—	—	—	—	—	—	—	—	—	
do.....	do.....	1925	346	2,573	.727	—	—	—	(1)	(1)	7	4	31	35	18	6	2	(1)	(1)	
do.....	do.....	1927	354	2,863	.756	—	—	(1)	(1)	(1)	—	—	23	36	22	11	3	(1)	(1)	

<sup>1</sup> Less than 1 per cent.<sup>2</sup> Not classified in 1923.<sup>4</sup> Included with "Other skilled employees" in 1923 and 1925.

Table 4 shows average and classified full-time hours per week for the employees in 8 of the principal occupations in foundries and in 14 of the principal occupations in machine shops for 1923, 1925, and 1927, according to the full-time hours per week. For pattern makers in machine shops these figures are presented for 1927 only. The figures are shown in detail for each State for 1927 in Table C, page 70.

The regular or customary full-time hours per week are the number of hours that a foundry or machine shop under normal conditions is in operation without taking into consideration the hours actually worked by individual employees during the period covered.

Full-time weekly hours of employees in each of the 22 occupations for which data are shown for the three years were less in 1925 and 1927 than in 1923. There was a slight increase in full-time hours in 1927 over 1925 in a few of the occupations.

TABLE 4.—Average and classified full-time hours per week in 8 specified occupations in foundries and 15 in machine shops, 1923, 1925, and 1927, by sex

## FOUNDRIES

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Per cent of employees whose full-time hours per week were—												
						Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
Chippers and rough grinders	Male	1923	319	2,923	52.5	---	1	(1)	22	9	14	8	26	(1)	8	2	7	3
	do.	1925	383	4,110	51.5	(1)	1	6	20	5	22	7	20	2	7	1	8	(1)
	do.	1927	379	3,857	51.1	(1)	3	8	22	2	22	6	20	1	8	1	6	1
Core makers	Male	1923	345	2,526	51.4	---	3	1	33	6	13	9	21	---	7	2	5	2
	do.	1925	393	3,067	50.3	2	2	5	31	5	20	5	19	(1)	6	3	(1)	(1)
	do.	1927	401	3,040	50.4	2	4	6	30	1	20	6	18	1	6	1	4	(1)
	Female	1923	22	240	49.2	---	13	5	24	20	20	3	14	---	1	---	---	---
	do.	1925	43	353	48.6	4	8	6	27	15	29	3	5	---	2	---	---	---
	do.	1927	41	324	48.4	6	9	5	31	6	33	4	8	---	---	---	---	---
Laborers	Male	1923	343	9,265	53.5	(1)	(1)	(1)	22	4	12	6	26	(1)	9	1	11	6
	do.	1925	389	10,931	52.5	(1)	1	4	18	6	21	6	22	1	6	1	10	4
	do.	1927	401	11,017	52.1	1	2	5	20	2	23	6	21	(1)	7	2	10	3
Molders, hand, bench	Male	1923	262	2,379	51.3	---	2	1	27	15	13	8	23	---	6	2	2	3
	do.	1925	325	2,363	50.2	3	3	5	22	11	24	9	17	2	1	(1)	3	---
	do.	1927	324	2,063	50.5	2	3	13	22	2	17	4	23	---	5	2	5	---
Molders, hand, floor	Male	1923	346	4,904	51.2	(1)	3	2	37	3	13	7	20	---	6	1	6	2
	do.	1925	401	5,612	50.4	2	2	5	33	4	17	6	20	(1)	5	1	4	---
	do.	1927	402	5,375	49.9	3	5	8	30	3	17	6	18	1	5	1	4	---
Molders, machine	Male	1923	161	1,993	51.9	(1)	(1)	---	23	6	16	10	27	---	11	1	6	---
	do.	1925	229	3,140	50.1	5	(1)	5	24	6	28	9	17	(1)	3	(1)	3	---
	do.	1927	220	3,102	50.4	4	(1)	8	20	1	32	5	21	(1)	4	2	2	1
Molders' helpers, floor	Male	1923	234	1,986	52.2	---	3	(1)	25	2	15	7	28	---	8	2	8	2
	do.	1925	285	2,642	51.8	1	3	6	19	3	18	6	26	(1)	4	2	11	2
	do.	1927	247	1,820	51.2	1	6	5	22	3	16	7	25	2	7	1	4	1
Pattern makers	Male	1923	283	1,314	51.1	---	6	2	24	8	19	8	16	---	9	2	4	(1)
	do.	1925	346	1,827	50.4	(1)	3	8	22	9	27	6	12	1	8	2	3	---
	do.	1927	259	1,512	50.3	(1)	4	6	23	4	33	11	7	1	7	2	2	(1)



# MACHINE SHOPS

109537°-29-2	Assemblers.....	Male.....	1923	310	5,618	50.6	(1)	3	4	26	4	26	8	6	16	5	1	(1)
	.....do.....	.....do.....	1925	306	7,151	49.6	.....	1	5	31	5	35	7	4	8	2	(1)	(1)
	Boring-mill hands and operators.....	.....do.....	1923	271	1,455	50.8	(1)	5	4	24	4	25	9	7	15	4	1	1
	.....do.....	.....do.....	1925	341	2,135	50.4	.....	2	7	25	7	26	9	8	12	2	(1)	(1)
	Drill-press hands and operators.....	.....do.....	1923	354	2,208	50.7	.....	5	6	21	7	28	11	5	10	1	3	2
	.....do.....	.....do.....	1925	350	3,634	50.8	(1)	4	2	27	4	28	9	7	12	5	1	1
	Fitters and bench hands.....	.....do.....	1923	423	5,012	50.4	(1)	3	5	27	5	30	10	6	10	2	1	1
	.....do.....	.....do.....	1925	433	4,759	50.1	.....	7	4	22	5	37	9	3	8	1	2	1
	Grinding-machine hands and operators.....	.....do.....	1923	271	4,721	49.9	.....	14	3	26	3	23	9	4	12	3	1	(1)
	.....do.....	.....do.....	1925	388	8,157	49.8	(1)	5	11	29	4	25	10	4	8	3	1	(1)
	Laborers.....	.....do.....	1923	332	6,661	49.5	.....	6	4	31	5	31	9	4	6	4	1	(1)
	.....do.....	.....do.....	1925	221	1,255	50.5	(1)	7	3	23	2	30	10	5	13	5	1	(1)
	Lathe hands and operators, engine.....	.....do.....	1923	267	2,016	50.3	.....	2	5	28	4	32	10	6	10	2	1	(1)
	.....do.....	.....do.....	1925	298	2,285	50.1	.....	4	4	23	9	36	11	3	8	1	1	(1)
	Lathe hands and operators, turret.....	.....do.....	1923	375	8,355	51.1	.....	4	2	26	3	27	8	8	15	5	2	1
	.....do.....	.....do.....	1925	439	9,833	50.6	(1)	3	5	26	4	31	9	6	11	3	1	1
	Machinists.....	.....do.....	1923	459	8,342	50.4	.....	7	3	23	6	36	8	6	9	2	2	(1)
	.....do.....	.....do.....	1925	347	4,421	50.9	(1)	3	4	25	4	25	9	9	13	3	1	1
	Machinists' and toolmakers' helpers.....	.....do.....	1923	401	5,856	50.3	.....	7	5	21	6	29	8	8	10	2	1	(1)
	.....do.....	.....do.....	1925	414	5,964	50.2	.....	4	2	35	3	25	8	4	12	6	1	1
	Milling-machine hands and operators.....	.....do.....	1923	251	2,147	50.5	(1)	4	2	32	6	29	8	5	11	1	1	(1)
	.....do.....	.....do.....	1925	323	3,393	50.2	.....	3	4	29	4	33	9	3	8	1	3	(1)
	Pattern makers.....	.....do.....	1923	343	3,157	50.0	.....	12	5	29	3	21	5	13	7	5	1	(1)
	.....do.....	.....do.....	1925	331	2,952	50.0	(1)	8	4	29	7	25	8	9	6	3	1	(1)
	Planer hands and operators.....	.....do.....	1923	374	3,820	49.9	.....	14	4	24	4	32	9	6	4	1	2	(1)
	.....do.....	.....do.....	1925	395	3,794	49.5	.....	9	1	35	3	18	5	12	12	3	1	(1)
	Screw-machine hands and operators.....	.....do.....	1923	251	1,616	50.4	(1)	10	8	23	3	29	7	5	7	6	1	(1)
	.....do.....	.....do.....	1925	262	1,641	49.8	.....	12	3	20	3	32	12	6	10	3	1	1
	Toolmakers.....	.....do.....	1923	268	1,938	50.0	.....	7	4	34	3	24	9	4	10	3	1	(1)
	.....do.....	.....do.....	1925	339	2,925	49.7	.....	8	6	32	6	27	9	3	7	2	1	(1)
	Assemblers.....	.....do.....	1923	343	2,872	49.7	.....	6	6	27	7	28	11	3	10	3	1	(1)
	.....do.....	.....do.....	1925	235	1,228	49.6	.....	6	6	27	4	27	13	4	12	4	2	1
	Boring-mill hands and operators.....	.....do.....	1923	272	1,339	50.6	(1)	7	3	24	2	28	9	8	9	3	(1)	(1)
	.....do.....	.....do.....	1925	327	1,838	50.2	(1)	5	7	25	4	26	9	7	10	3	1	(1)
	Drill-press hands and operators.....	.....do.....	1923	339	1,818	50.5	.....	5	6	24	5	31	9	4	13	5	2	(1)
	.....do.....	.....do.....	1925	177	1,047	50.6	.....	4	2	30	4	27	9	4	8	2	1	(1)
	Fitters and bench hands.....	.....do.....	1923	215	1,482	49.8	.....	3	8	30	7	29	11	2	5	1	4	(1)
	.....do.....	.....do.....	1925	213	1,520	49.8	.....	3	6	27	18	26	11	1	11	4	2	(1)
	Grinding-machine hands and operators.....	.....do.....	1923	274	1,661	50.4	.....	6	2	30	3	27	11	5	11	8	2	(1)
	.....do.....	.....do.....	1925	346	2,573	50.0	.....	2	6	32	4	30	11	4	8	2	1	(1)
	Laborers.....	.....do.....	1923	354	2,863	49.7	.....	3	5	32	7	32	11	2	5	2	1	(1)
	.....do.....	.....do.....	1925	354	2,863	49.7	.....	3	5	32	7	32	11	2	5	2	1	(1)

<sup>1</sup> Less than 1 per cent.

<sup>2</sup> Included with "Other skilled employees" in 1923 and 1925.

Table 5 shows the regular or customary full-time hours Monday to Friday, Saturday, and per week, and also the number of establishments in each State at each specified number of full-time hours per day and per week. In some establishments the full-time hours of a few employees or occupations vary from the full-time hours per day or per week of the great majority of the employees in such establishments, but the prevailing hours of the greater number of employees are presented in this table as the hours of the establishment as a whole.

While the full-time hours per week are by far the best measure of the customary hours of operation in a plant, they do not show the variation in hours for each day in the week. For example, in some plants the hours may be 8 per day for 6 days. In others the hours may be  $8\frac{3}{4}$  Monday to Friday and  $4\frac{1}{4}$  on Saturday, or  $8\frac{1}{2}$  hours Monday to Friday and  $5\frac{1}{2}$  hours on Saturday, or  $8\frac{3}{5}$  hours Monday to Friday and 5 hours on Saturday, and so on. In each case the full-time hours per week are 48.

In order that the variation in the working time of employees in the various plants may be clearly shown, a classification of establishments according to their full-time or customary hours of operation by day from Monday to Friday, on Saturday, and per week is presented in Table 5. The classification begins with the lowest and ends with the highest number of hours per week. The customary hours of labor of 68 of the 417 foundries covered in the study were less than 48 per week, of 119 were 48 per week, of 77 were 50 per week, of 76 were 54 per week, and of 14 were 60 per week. The remaining 63 plants were between 48 and 60 per week. The hours in machine shops ranged from 44 per week for 42 establishments to 60 per week for 6 establishments. The hours of 107 machine shops were 48 per week, of 170 were 50 per week, and of 46 were 54 per week.

As there is very little regular night work in the foundries and machine shops, the hours of the table are for day work only.

The table also shows the 5-day week in 33 foundries and in 7 machine shops, there being no work in these establishments on Saturday.

## FOUNDRIES

[illegible]

## INTRODUCTION AND SUMMARY

TABLE 5.—Number of establishments in each State working each specified full-time hours per week and per day, 1927—Continued

## FOUNDRIES—Continued

Full-time hours per week	Full-time hours per day			Number of establishments working specified hours per day and per week in—																				Total								
	Monday to Thursday	Friday	Saturday	Alabama	California	Colorado	Connecticut	Georgia	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Missouri	New Hampshire	New Jersey	New York		Ohio	Oregon	Pennsylvania	Rhode Island	Tennessee	Texas	Washington	Wisconsin
53.....	9½	9½	5½	1														1									1					2
53½.....	9	9	8½																													1
53½.....	9½	9½	6																													1
54.....	9	9	9				2	1	7	1	4	7			1	2	1	7	1	4	2	2	10	8			2	1	1			1
54.....	9½	9½	8½																													1
54.....	9½	9½	7½											1						1										1		1
54.....	9½	9½	7½																			1										1
54.....	9½	9½	5½									1										1										1
54.....	9½	9½	5½																													2
54.....	9½	9½	5	1																							1			1		2
54½.....	10	9	5																	1							1					1
55.....	10	10	4½																													1
55.....	10	10	5	1			1	2	1	1								2		1	1		1	3		1	7				3	24
55½.....	10	10	5½																													1
56.....	10	10	6								1																					1
56.....	10½	10½	5½																													1
58.....	10	8												1													1					1
59.....	10	10	9				1			2	1		1	1		1	1	2						2								1
60.....	10	10	10				1	1	1	2	1		1	1		1	1	2														14
Total.....				4	21	3	16	7	28	16	11	9	7	5	4	8	28	39	5	12	8	17	25	52	7	40	8	7	10	7	13	417

## MACHINE SHOPS

44.....	8	8	4		17				2	1	1	2	1	3	1	1	3			1		1	1	1	1	3				3		42
44½.....	8	8	4½		1											1	1							1	2							4
45.....	8	8	5																													5
45.....	9	9	0																													4
45¾.....	8¾	8¾	4½						2	1	1		1				1										1					1
47.....	8	8	7																													1
47.....	8½	8½	5¾																													1
47.....	8½	8½	4½																													1
47½.....	8½	8½	5																													2
47½.....	9½	9½	0																													1
48.....	8	8	8		1	1		1	2	1	1	1				2		1			1	1	1		2	3			1	2	2	24



## PAY FOR OVERTIME AND FOR SUNDAY AND HOLIDAYS

Overtime is ordinarily understood to be any time worked in excess of the regular hours of labor per day or per week, but the overtime for which provision is made by establishments for payment at a higher rate than that paid for regular time varies considerably in different plants. A large number of the plants covered in this study did not pay any extra rate for overtime. In some plants the regular rate was paid until a certain number of hours per day were worked in addition to the customary hours of the plant. Example: The regular hours of a plant were 8 per day and 48 per week, but the extra rate for overtime was not paid except for time worked in excess of 9 hours per day or 54 per week. The 1 hour of overtime per day in excess of the regular 8 hours was paid for at the regular rate. In some plants the extra rate was paid to all employees, in others to employees in certain occupations only. Most of the plants that pay a higher rate for overtime than for regular hours per day also provide for an extra rate for work on Sunday and holidays. There is, however, very little work on Sunday and holidays in this industry.

At the time of the 1927 survey 244 of the 417 foundries and 404 of the 526 machine shops covered paid all or a part of the employees extra for overtime. Table 6 shows the number of establishments, employees entitled, and the extra rates paid for overtime work.

TABLE 6.—*Pay for overtime and for Sunday and holiday work, employees entitled to such pay, period, and rate*

Number of establishments	Employees entitled	Times regular rate, for—	
		Overtime (time worked in excess of regular hours per day or week)	Work on Sunday and holidays
173	All employees.....	1.....	1.....
63	do.....	1½.....	1½.....
29	do.....	1½.....	2.....
7	do.....	1½ to midnight, then 2.....	2.....
5	do.....	1½.....	1½.....
5	do.....	1½ after 48-hour week.....	1½.....
2	do.....	2.....	2.....
1	do.....	1½ after first hour.....	2.....
1	do.....	1½ after 60-hour week.....	1½.....
1	do.....	1½ Monday to Friday; Saturday p. m., regular rate.....	2.....
1	do.....	1½ after 52-hours week, including Sunday.....	1½.....
1	do.....	1½ after 8¾-hour day or 48 hours per week.....	1½.....
1	do.....	1½ after 9-hour day or 50 hours per week.....	1½.....
1	do.....	1½ after 9-hour day, or 50 hours per week.....	1½.....
1	do.....	1½ after 9 hour day; 1½ for Saturday p. m.....	1½.....
1	do.....	15 per cent after 50 hours per week.....	15 per cent.....
1	do.....	1½ to 11.30 p. m., then 2.....	2.....
1	do.....	1.....	1½ September to April.....
1	do.....	1.....	1½.....
1	do.....	1¼ to 9 p. m., then 1½ to midnight, 2 thereafter.....	2.....
1	do.....	1½ after first hour.....	1½.....
1	do.....	1½ to midnight, then 2.....	2.....
1	do.....	5 cents per hour up to midnight, then 10 cents per hour.....	10 cents per hour.....
1	do.....	2.....	2.....
1	do.....	1½ after first 15 minutes.....	1½.....
1	do.....	1½ to 10 p. m., then 2.....	2.....
1	do.....	1½ for first 4 hours, then 2.....	2.....

TABLE 6.—Pay for overtime and for Sunday and holiday work, employees entitled to such pay, period, and rate—Continued

## FOUNDRIES—Continued

Number of establishments	Employees entitled	Times regular rate, for—	
		Overtime (time worked in excess of regular hours per day or week)	Work on Sunday and holidays
10	Core makers and molders.....	1½	1½
1	Core makers, molders, and apprentices.....	1½	1½
1	Core makers and molders.....	1½	2.
1	do.....	2	2.
1	do.....	2	2.
1	All others.....	1½ except laborers; Saturday p. m., regular rate.	1½
1	Core makers, molders, and pattern makers.....	2	2.
1	All others.....	1½	1½
1	Core makers and molders.....	1½	1½
1	All others.....	1	2.
1	Core makers and molders.....	1½ after 48 hours per week	1½
1	Core makers and molders' helpers.....	1½ after 52 hours per week	1½
1	Core makers, crane men, and molders.....	1½ for first 4 hours, then 2	2.
1	All others.....	1½	1½
1	Core makers, crane men, molders, and pattern makers.....	1½	1½
1	Core makers and molders.....	1½	1½
1	All others.....	1½	1½
1	Molders.....	1½	1½
1	Molders, bench and floor.....	1½	1½
1	Molders and helpers.....	1½	1½
1	Molders, hand, floor.....	1½	1½
1	Molders.....	2	2.
1	All others.....	1½	2.
1	Molders, bench and floor.....	2	2.
1	All others.....	1½	1½
1	Molders.....	1½ if hourly rate is 80 cents or over	1½
1	Pattern makers and certain others.....	1½	1½
3	Mechanics.....	1½	1½
1	Machinists in maintenance department.....	1½	1½
1	Pattern-room workers.....	2.	2.
1	do.....	1½	2.
1	do.....	1½	1½
1	Laborers.....	1½ for opening-up sand before work	1½
1	Outside labor.....	1½	1½
4	Skilled workers.....	1½	1½
1	Skilled workers.....	2	2.
1	Other employees.....	1½	1½
1	Productive labor.....	1½ after 6 p. m. and before 6 a. m.	1½
1	do.....	1½ after 8½ hours per day or 48 hours per week	1½
1	do.....	1½	1½
1	Productive time workers.....	1½	1½
1	Tool-room employees.....	1½	2.
1	All others.....	1	2.
1	Productive labor.....	1½	2.
1	Night men.....	1½ after 48 hours per week	1½
1	Maintenance men.....	2 for night work	2.
1	All others.....	1	2.
1	Carpenters and pattern makers.....	2.	2.
1	All others.....	1½	2.
1	Laborers.....	1½	1½
1	All others.....	1½	2.
1	Shippers, cleaners, rough grinders, crane operators, riggers, and cupola workers.....	1½	1½
1	All others, except laborers.....	1½	2.
1	First-class molders.....	1½	1½
1	All others.....	1½	1½
1	Pattern makers.....	1½	1½
1	All others.....	1½ after 54 hours per week	1½
1	Maintenance men.....	1½	1½
1	All others.....	1½ for first 4 hours, then 2	2.
1	Day laborers.....	1½ after 5.30 p. m.	1½
1	Night laborers.....	1½ after 10 hours	1½
1	All workers on rush orders.....	1½	1½
1	Employees taking no vacation.....	1½	1½
1	Boiler-shop employees.....	1½ to midnight, then 2	2.
1	All day workers.....	1½ 4.30 p. m. to midnight, then 2 to 7.30 a. m.	2.
1	Laborers and night workers.....	1½	1½

TABLE 6.—*Pay for overtime and for Sunday and holiday work, employees entitled to such pay, period, and rate—Continued*

## FOUNDRIES—Continued

Number of establishments	Employees entitled	Times regular rate, for—	
		Overtime (time worked in excess of regular hours per day or week)	Work on Sunday and holidays
1	Hourly workers.....	1½ after 60 hours per week.....	1½
2	do.....	1½	1½
1	do.....	1½ after 54 hours per week.....	1½
1	do.....	1½ from 9 p. m. to midnight, then 2.....	2
1	Day workers.....	1½ after first hour; 1½ after midnight.....	1½
3	All time workers.....	1½	1½
1	do.....	1½ on special call.....	1½
1	All day workers.....	1½	1½
1	do.....	1½ after 50 hours per week.....	1½
1	All night workers.....	1½ after 55 hours per week.....	1½
1	Hourly workers.....	1½ after 10 hours per day.....	1½
1	Day workers.....	1½ after 6 p. m. per day.....	1½
1	6-day workers.....	10 per cent after 12 hours.....	1½
1	Night workers, except watchmen and ice-plant men.....	1½ after 60 hours per week.....	1½
1	All others.....	1½ for first 4 hours, then 2.....	2
1	All except floating labor and maintenance men.....	5 per cent extra regardless of when done.....	5 per cent.
1	Laborers, electricians, and maintenance men.....	1½.....	1½
1	All except laborers and floor-molders' helpers.....	1½.....	1½
1	All except day laborers, day pattern makers, storage helpers, crane operators, core-oven firemen, and electricians.....	1½.....	1½
1	All time workers, except janitors, watchmen, and salaried men.....	Work 9 hours and are paid for 10 hours.....	1½
1	All except pattern makers.....	1½.....	1½
1	All except laborers and weekly employees.....	1½.....	1½
1	All except piece workers.....	1½.....	1½
1	do.....	1½.....	1½
1	All except foundry laborers.....	1½.....	1½
1	All except repair men.....	1½.....	1½
1	All except engineers and salaried employees.....	1½.....	1½
1	All except salaried employees, piece workers, power-house men, and watchmen.....	1½.....	1½
1	All except watchmen.....	2.....	2
1	All except watchmen and apprentices.....	1½ after 9 hours per day or 50 per week.....	1½
5	All except salaried employees.....	1½.....	1½
1	All except truck drivers.....	1½.....	1½
3	All except watchmen.....	1½.....	1½
2	All except weekly workers.....	1½.....	2
1	All except watchmen and foremen.....	1½.....	2
1	do.....	1½.....	1½
2	do.....	1½ to midnight, then 2.....	2
3	All except watchmen.....	1½.....	2
1	do.....	1½ after 6 p. m.....	1½
1	All except watchmen and salaried employees.....	1½.....	2
1	All except watchmen and laborers.....	1½.....	1½
1	All except weekly employees.....	1½ to midnight, then 2.....	2
1	All except salaried employees and 7-day men.....	1½.....	1½
1	All except working foremen and 7-day men.....	1½.....	1½
1	All except 7-day men.....	1½.....	2
2	do.....	1½.....	1½

## MACHINE SHOPS

122	All employees.....	1.....	1.
199	do.....	1½.....	1½.
60	do.....	1½.....	2.
13	do.....	2.....	2.
1	do.....	1½ for first 3 hours, then 2.....	2 (watchmen 1).
1	do.....	1½ after first 15 minutes.....	1½.



TABLE 6.—*Pay for overtime and for Sunday and holiday work, employees entitled to such pay, period, and rate—Continued*

MACHINE SHOPS—Continued

Number of establishments	Employees entitled	Times regular rate, for—	
		Overtime (time worked in excess of regular hours per day or week)	Work on Sunday and holidays
1	All except floating labor, electricians, and maintenance men.	1½ for first 4 hours, then 2	2.
1	Laborers, electricians, and maintenance men.	5 per cent extra regardless of when worked.	5 per cent extra.
3	Watchmen and truck drivers.	1.	1.
6	All employees.	1½ to midnight, then 2.	2.
1	do.	1½ for first 4 hours, then 2.	2.
1	do.	1½ for 8 hours, then 2.	2.
1	Machine hands and operators, machinists, and millrights on repair work.	1½	1½.
1	All day workers.	1½	1½.
1	All employees.	1½	1.
1	Productive labor.	1½	1½.
1	All others.	1½	1½.
1	Machinists and helpers.	1½	1½.
5	Machinists.	1½	1½.
1	All employees except productive labor.	1½	1½.
1	All productive labor.	1½	2.
13	All employees.	1½	1½.
1	Foremen.	1½	1½.
1	All others.	1 plus 15 per cent.	1 plus 15 per cent.
1	All employees except firemen and watchmen.	1½ to 11.30 p. m., then 2	2.
1	All employees.	1½ to midnight, then 2	2.
1	All 6-day employees whose hours end before 5 p. m.	1½ to 5 p. m.	2.
1	Boiler makers and helpers.	2	2.
1	All others.	1½ to midnight, then 2	2.
1	All employees.	1½ from September to April.	1½.
1	All employees except laborers, shiping-room employees, and millwrights.	1½	1½.
1	All employees.	1½ after 9 hours, Monday to Friday; 1¼ Saturday afternoon.	1½.
1	Certain skilled employees.	1½	1½.
1	Men working 11 hours or over.	1½ after 9-hour day	1½.
1	All employees except laborers.	1½	2.
2	All employees.	1½	1½.
1	do.	1½ after 6 p. m., or 10 hours per day	1½.
3	do.	1½	1½.
1	Hourly workers.	1½ after 10 hours per day	1½.
1	Day workers.	1½ after 6 p. m.	1½.
1	Night workers.	10 per cent after 12 hours.	10 per cent after 12 hours.
1	All others except watchmen and ice-plant employees.	1½ after 60 hours per week	1½.
1	Time workers.	1½ after 6 p. m., if regular hours have been worked.	1½.
1	1 trucker, 2 painters, 1 pattern maker.	1½	1½.
1	All employees.	1 plus 5 cents per hour to midnight, then 1 plus 10 cents.	5 cents per hour to midnight, then 10 cents.
1	do.	1½	1½.
1	Hourly workers.	1½ from 6 p. m. to 7 a. m.	1½.
5	Skilled day workers.	1½	1½.
1	Assemblers, bench and machine hands, and operators.	1½ for first 2 hours, then 2	2.
1	All others except watchmen.	1½	1½.
1	Crane operators, laborers, and helpers.	1½	1½.
1	Night workers.	1½ after 48 hours per week	1½.
1	All others except watchmen and riggers.	1½	1½.
1	Blacksmiths and helpers.	2.	2.
1	All others except watchmen.	1½	1½.
1	All day workers.	1½ to midnight, then 2	2.
1	All night workers.	1½ after 12 hours per night or 48 hours per week.	2.
1	Skilled day workers.	1½ to 9 p. m., then 2	2.
1	Skilled night workers.	1½ after 48 hours per week	2.
1	All other day workers.	1½	1½.
1	All other night workers.	1½ after 48 hours per week	1½.
1	Assemblers, machinists, and machine hands.	1½	1½.
1	do.	1½	1½.

TABLE 6.—*Pay for overtime and for Sunday and holiday work, employees entitled to such pay, period, and rate—Continued*

## MACHINE SHOPS—Continued

Number of establishments	Employees entitled	Times regular rate, for—	
		Overtime (time worked in excess of regular hours per day or week)	Work on Sunday and holidays
2	Machinists and machine operators.....	1½	1½
2	All employees.....	1½	1½
1	do.....	15 cents per hour.....	
7	All employees except laborers.....	1½	1½
3	All employees except yard laborers.....	1½	1½
1	Repair work for outside concerns only.....	1½	2
1	All employees except laborers and millwrights.....	1½	1½
1	{All day workers.....	1½	1½
1	{All night workers.....	1½ after 11½ hours per night.....	1½
1	All employees except truck drivers and laborers.....	1½	1½
1	{Machinists.....	1½ for first 4 hours, then 2.....	1½
1	{All others.....	1½	1½
1	All employees.....	1½ for first 2 hours, then 2.....	2
2	do.....	1½ 4.30 p. m. to 10 p. m., then 2 to 7 a. m.....	2
2	do.....	1½ to midnight, then 2.....	2
1	All employees except watchmen.....	1½ 5 p. m. to 9 p. m., then 1½ to midnight; 2 to 7 a. m.....	2
1	do.....	1½ if 1 hour or more overtime is worked.....	1½
1	{Slingers.....	1½	1½
1	{Yard and miscellaneous labor.....	1½	1½
1	{All others except stockmen, watchmen, and salaried employees.....	1½ to midnight, then 2.....	2
1	{All employees.....	1½	1½
1	{do.....	1½ after 41 hours per week with holiday.....	1½
1	All employees except watchmen and storeroom men.....	1½	2
1	{Apprentices.....	1½	1½
1	{All others except high-class mechanics.....	1½	1½
1	{High-class mechanics.....	1½	2
1	Laborers.....	1½	1
1	Machinists.....	1½	2
1	Maintenance men.....	2 for nightwork.....	2
1	All employees.....	1½ after 5 p. m.....	1½
1	Day workers.....	1½ after 9 hours per day.....	1½
1	Night workers.....	1½ plus 10 per cent.....	1½
1	Day workers.....	1½ to midnight, then 2.....	2
1	Night workers.....	1½ after working hours until noon.....	1½ and 1½ after working hours to noon.
1	All employees except testers.....	1½	1½
1	All employees on rush orders.....	1½	1½
1	Machinists in maintenance department.....	1½	1½
2	All employees.....	1½ to 10 p. m., then 2.....	2
1	{Machinists.....	2.....	2
1	{All others.....	1½	1½
1	Rush work, all employees except laborers.....	1½	1½
1	Outside workers.....	1½	1½
1	All employees.....	1½ 6 p. m. to midnight, then 2 to 7 a. m.....	2
1	do.....	1½	1½ on Sunday and on holidays.
1	All employees except shipping department.....	1½	1½
1	All employees except watchmen.....	1½ to 10 p. m., then 2.....	2
1	{Maintenance men.....	1½	1½
1	{All others.....	1½ for first 4 hours, then 2.....	2
1	All employees except repair workers.....	1½	1½
1	Machinists.....	2.....	2
1	All employees except laborers.....	1½ to midnight, then 2.....	2
1	All employees.....	1½ after 6.30 p. m.....	1½
3	Mechanics.....	1½	1½
1	All employees.....	1½; for Saturday afternoon, 1.....	2
1	do.....	1½ after 9-hour day provided 11 or more hours are worked.....	1½
1	Machine hands.....	1½	1½

## BONUS SYSTEMS

Only 59 of the 417 foundries and 114 of the 526 machine shops covered had bonus systems in effect at the time of the 1927 study. The basis or kind of each bonus, the wage earners entitled to receive the bonus, the amount of the bonus, and the conditions necessary in order to receive the bonus are presented in Table 7.

In 44 of the 59 foundries and in 93 of the 114 machine shops a "production" or "time saving" bonus was paid to part or all of the employees whereby their earnings at regular rates were increased by the addition of a specified amount for producing more work than a specified standard of quantity in a stated period of time. Example: A standard of 40 hours was set for the completion of a certain job or piece of work. An employee completed the work in 30 hours, thereby saving 10 hours. He was paid for  $\frac{1}{2}$  of the time saved, or for 35 hours instead of 30 hours at his hourly rate.

In 7 foundries and 7 machine shops an "attendance" bonus was paid to certain or all employees for full-time attendance on night work during a given period of time, and for responding to fire alarms.

In 4 machine shops a "service" bonus was paid to employees who had been in the service of the company a specified period of time. Example: An employee's earnings at his regular rate were increased 1 per cent after one year of service, 2 per cent after 2 years, 3 per cent after 3 years, and so on to 5 per cent after 5 years of continuous service.

In one foundry and one machine shop a "profit sharing" bonus was paid to all employees whereby their earnings at regular rates were increased by the addition of a specified per cent of such earnings. The amount of the bonus was determined at the end of each year by the profits of the company.

In two foundries a "material saving" bonus was paid to firemen for saving coal.

In addition to the above, "production and attendance" bonuses were paid in 1 foundry and 3 machine shops, "service and attendance" in 2 foundries and 3 machine shops, "profit-sharing and attendance" in 1 foundry and 1 machine shop, and "production and material saving" in 1 machine shop. Bonuses were paid in 1 foundry and 1 machine shop for which basis or kind of bonus was not reported.

TABLE 7.—*Bonus systems of 59 foundries and 114 machine shops, 1927*

## FOUNDRIES

Number of establishments	Kind of bonus	Wage earners entitled	Amount of bonus	Conditions
6	Production.....	All employees.....	One-half of time saved at hourly rate.	Must produce more than set standard of work.
1	do.....	Chippers, pourers, pattern makers, and molders.	do.....	Do.
1	do.....	Snaggers, sand blasters, and floor molders.	do.....	Do.
1	do.....	Pattern makers.....	do.....	Do.
2	do.....	Molders.....	do.....	Do.
3	do.....	All employees.....	All of time saved at hourly rate.	Do.
4	do.....	do.....	Not reported.....	Do.
1	do.....	Molders.....	Part of time saved.....	Do.

TABLE 7.—*Bonus systems of 59 foundries and 114 machine shops, 1927—Continued*

## FOUNDRIES—Continued

Number of establishments	Kind of bonus	Wage earners entitled	Amount of bonus	Conditions
2	Production.....	Core makers, molders, and helpers, and pattern makers.	Time saved at hourly rate.	Must produce more than set standard of work.
1	do.....	Machine molders.....	Time saved.....	Do.
1	do.....	Molders and core setters.....	do.....	Do.
1	do.....	Molders and their apprentices, molding-machine helpers, and sand blasters.	Varies, \$1 to \$1.35 per day.	Do.
1	do.....	Molders and core makers.....	Time saved at hourly rate.	Do.
1	do.....	All employees.....	Depends on per cent of efficiency.	Do.
1	do.....	Galvanizers only.....	Not reported.....	Do.
1	do.....	All productive labor.....	do.....	Do.
1	do.....	Bench molders.....	4 cents per piece.....	Do.
1	do.....	Molders.....	Not reported.....	Do.
1	do.....	All productive labor.....	Value of per cent of time poundage saved.	Do.
1	do.....	Core makers and molders.	One-half of time saved.....	Do.
1	do.....	Part of employees exclusive of pattern makers.	Per cent of time saved.....	Do.
1	do.....	All employees except carpenters and pattern makers.	Based on efficiency.....	Do.
1	do.....	Molders.....	Quantity of production.....	Do.
1	Production and attendance.	All employees.....	5 per cent of monthly pay; time saved, at hourly rate.	Full-time attendance.
1	Production.....	Not reported.....	Not reported.....	Not reported.
1	do.....	A few employees.....	do.....	Do.
1	do.....	All employees.....	do.....	Do.
1	do.....	All in service at end of month.	25 cents per hour for time saved.	Continuous service and standard time study.
1	do.....	Chipping department employees.	Not reported.....	Not reported.
1	do.....	All core makers, cupola tenders, and molders.	Per cent of regular gross earnings based on ratio of monthly hourly average to yearly hourly average and average cost per pound.	Production must exceed yearly average.
1	do.....	All productive labor.....	80 per cent of base wage for overproduction.	Based on time and production.
1	do.....	Malleable molders.....	25 per cent of piecework earnings.	None.
1	Attendance.....	All employees.....	10 per cent of wages.....	Full-time attendance.
1	do.....	Night fire squad.....	58 cents per hour.....	Respond to fire alarm.
1	do.....	Night employees.....	10 per cent of wages.....	Night work.
2	do.....	All employees after 1 year of service.	1 per cent after 1 year to 5 per cent after 5 years.	Continuous service.
1	do.....	Sand slingers.....	10 cents per section.....	None.
1	do.....	Laborers.....	2 hours pay.....	For Sunday work.
1	do.....	All employees.....	5 per cent of monthly wages.....	Full-time attendance.
1	Service.....	do.....	6 months to 2 years, 1 per cent; 3d and 4th year, 2 per cent; 5th and 6th year, 3 per cent; 7th and 8th year, 4 per cent; after 8th year, 5 per cent.	Not over 6 days per year absent or tardy unless excused.
1	Attendance and service.	Not reported.....	Not reported.....	Not reported.
1	Attendance.....	Molders.....	1 hour per day.....	Must work 8 hours per day.
1	Material saving.	Furnace firemen.....	\$1 per week.....	Greatest output with least coal consumption.
1	do.....	do.....	Not reported.....	Furnace repairing.
1	do.....	Oven tenders, sand mixers, rough carpenters, pattern makers, core makers, and annealers.	5 cents per ton additional to hourly rate.	Daily output.
1	Production.....	Tumble barrel operators.....	10 cents per barrel.....	Per barrel finished.
1	Service and profit sharing.	All employees in service over 6 months.	1½ per cent to 4½ per cent of earnings.	1½ per cent after 1 year to 4½ per cent after 4 years.
1	Not reported.....	1 electrician.....	10 per cent of monthly pay.	Not reported.
1	Profit sharing.....	All employees.....	Average ½ per cent of earnings.	In service at end of year.

TABLE 7.—*Bonus systems of 59 foundries and 114 machine shops, 1927*—Continued

## MACHINE SHOPS

Num- ber of estab- lish- ments	Kind of bonus	Wage earners entitled	Amount of bonus	Conditions
27	Production.....	All employees.....	One-half of time saved.....	Must produce more than set standard of work.
1	.....do.....	Employees in 14 occupa- tions.	.....do.....	Do.
1	.....do.....	Blacksmiths and machine operators.	.....do.....	Do.
1	.....do.....	Sheet-metal department only.	.....do.....	Do.
1	.....do.....	Lathe, drill, planer, frame assembly, folding.	.....do.....	Do.
1	.....do.....	Machine hands, assem- blers, bench hands, and fitters, sheet-metal de- partment.	.....do.....	Do.
1	.....do.....	A few operators.....	.....do.....	Do.
1	.....do.....	Milling department.....	.....do.....	Do.
1	.....do.....	Assemblers, bench hands, and all machine labor.	.....do.....	Do.
1	.....do.....	Grinding, lathe, plane de- partment.	.....do.....	Do.
1	.....do.....	Blacksmiths, machinists, and machine operators.	.....do.....	Do.
1	.....do.....	Pattern makers.....	.....do.....	Do.
1	.....do.....	Some employees of all de- partments except pat- tern shop.	.....do.....	Do.
5	.....do.....	All employees.....	Time saved.....	Do.
1	.....do.....	.....do.....	Two-thirds of time saved.....	Do.
3	.....do.....	.....do.....	Per cent of efficiency.....	Do.
1	.....do.....	.....do.....	Determined by foreman.....	Do.
1	.....do.....	Machine hands and oper- ators and their appren- tices.	Per cent of earnings.....	Do.
1	.....do.....	Bench hands, tool makers, and machine hands.	Time saved at regular rate.....	Do.
1	.....do.....	Assemblers, helpers and bench hands, and ma- chinists.	.....do.....	Do.
1	.....do.....	Carburetor assemblers only.	Time saved at basic rate.....	Do.
2	.....do.....	All employees.....	80 per cent of time saved.....	Do.
4	.....do.....	.....do.....	Determined by produc- tion.	Do.
1	.....do.....	Machine hands and oper- ators.	Time saved at basic rate.....	Do.
1	.....do.....	All machine operators.....	Not reported.....	Do.
1	.....do.....	All productive labor.....	.....do.....	Do.
1	.....do.....	Machine shop, cupola, sheet-metal, mill room, bearing department.	.....do.....	Do.
1	.....do.....	Productive labor.....	Part of time saved.....	Do.
1	.....do.....	Some employees.....	Time saved at hourly rate.....	Do.
1	.....do.....	Assemblers, bench hands, machine hands, machin- ists, painters.	Not reported.....	Do.
1	.....do.....	All productive labor.....	12 cents per hour on time saved.	Do.
1	.....do.....	Drill-press, grinding, and screw-machine hands.	Not reported.....	Do.
1	.....do.....	Pattern makers and tool makers.	11 per cent of pay on time saved.	Do.
1	.....do.....	All employees.....	Three-fourths of time saved.	Do.
1	.....do.....	Lathe, polishing, screw machine, punch press, milling machine, wire forming, bench hands, assemblers, and inspec- tors.	80 per cent of time saved.....	Do.
1	Production and material sav- ing.	All productive employees.....	Not reported.....	Do.
1	Production.....	{All hand operators..... All machine operators.....	One-half of time saved..... One-third of hourly rate; one-half of time saved.	Do.
1	.....do.....	All employees.....	25 cents per hour on time saved.	Do.
1	.....do.....	Some employees.....	Time saved.....	Do.
1	.....do.....	Direct labor.....	Part of time saved.....	Do.
1	.....do.....	Productive labor.....	Not reported.....	Do.

TABLE 7.—*Bonus systems of 59 foundries and 114 machine shops, 1927—Continued*

## MACHINE SHOPS—Continued

Number of establishments	Kind of bonus	Wage earners entitled	Amount of bonus	Conditions
1	{ Attendance..... Production.....	Night workers..... All jobs applicable.....	20 per cent of wages..... Time saved at regular rate.....	Must work at night. Must produce more than set standard of work. Do.
1	{ Production..... Attendance.....	Assemblers and machine hands..... All employees.....	Time saved..... 5 per cent for promptness; 5 per cent for regular attendance.....	Promptness and attendance.
1	{ Attendance..... Production.....	.....do..... .....do.....	5 per cent of monthly earnings..... Time saved at hourly rate.....	Full-time attendance. Must produce more than set standard of work.
1	.....do.....	Planers.....	One-half of regular rate.....	Operate 2 machines.
1	.....do.....	All employees in service over 1 month.....	25 cents per hour for all time saved.....	Continuous service.
5	.....do.....	All employees.....	Not reported.....	Not reported.
1	.....do.....	Part of the employees.....	.....do.....	Do.
1	.....do.....	All productive labor.....	.....do.....	Do.
1	.....do.....	A few employees.....	.....do.....	Do.
2	.....do.....	Not reported.....	.....do.....	Do.
1	{ Attendance..... .....do..... .....do.....	Night workers..... .....do..... .....do.....	5 per cent of earnings..... 10 per cent of regular rate..... 4 cents per hour to regular rate.....	Must work at night. Do. Do.
1	.....do.....	{ Fire squad..... Night work..... Diesinkers.....	58 cents per hour..... 10 per cent of basic rate..... Not reported.....	Night fire calls. Night work. None.
1	{ .....do..... Profit sharing.....	Women employees..... All employees.....	12 per cent of wages..... 5 per cent 1 year to 10 per cent for 6 years' service.....	Full attendance. Continuous service.
1	Service.....	All after 1 year's service.....	1 per cent after 1 year to 5 per cent after 5 years' service.....	Do.
1	Attendance and service.....	Not reported.....	Not reported.....	Not reported.
1	{ Attendance..... Service.....	All employees..... .....do.....	5 per cent of monthly earnings..... 6 months to second year, 1 per cent; third and fourth years, 2 per cent; fifth and sixth years, 3 per cent; seventh and eighth years, 4 per cent; after eighth year, 5 per cent.....	Regular attendance. Allowed 6 days per year, absent or tardy.
1	{ Attendance..... Service.....	.....do..... .....do.....	2 hours at basic rate..... 2 years, 10 per cent; 3 years, 15 per cent; 5 to 10 years, 25 per cent; 10 years and over, 50 per cent of weekly pay.....	Full time or 2 hours if excused. Length of service.
1	Attendance.....	Helpers in hardening room.....	25 cents per day.....	Day workers only.
1	Production.....	Certain employees.....	Not reported.....	Service or production.
1	Service.....	All employees.....	3 per cent of year's earnings.....	In service at end of year.
1	Service and profit sharing.....	All employees in service over 6 months..... (All employees who enter service under 60 years.	1½ to 4½ per cent of earnings..... \$6 after 1 year; \$1 per year until \$15 is reached.	In service over 6 months. Enter service under 60 years of age.
1	Service.....	All employees after 1 year's service.....	\$5 for each continuous year's service.....	Continuous service.
1	.....do.....	Hourly men in service over 2 years.....	5 per cent of weekly earnings.....	In service over 2 years.
1	Not reported.....	All employees.....	10 per cent of monthly pay.....	Not reported.
1	Profit sharing.....	.....do.....	Average five-eighths of 1 per cent of pay roll earnings.....	In service at end of year.
1	Production.....	Drill-press and milling-machine hands.....	Not reported.....	Not reported.
1	.....do.....	Skilled employees.....	.....do.....	Do.
1	.....do.....	Knitting-machine testers.....	\$1 to \$5 per week.....	Do.
1	.....do.....	Not reported.....	Not reported.....	Do.
1	Attendance.....	Some night workers.....	\$5.50 per pay period.....	Night employment.

Table 8 shows the percentage distribution of employees in 8 of the principal occupations in foundries and in 15 in machine shops, according to the number of days on which they worked in one week. "Days worked" as used in this table means the number of calendar days or parts of days on which employees did some work. A full day or any part of a day was counted as a day. The average number of days worked by employees in the occupation is a simple average obtained by dividing the aggregate number of days on which any work was done by the total number of employees in the occupation.

The table shows that 51 per cent of the 3,857 chippers and rough grinders worked on 6 days during the week covered, 30 per cent on 5 days, 12 per cent on 4 days, 3 per cent on 3 days, 2 per cent on 2 days, and 1 per cent on 1 day, and also that 1 per cent worked on 7 days during the week. The average for all was 5.2 days.

TABLE 8.—*Number of days on which employees in 9 specified occupations in foundries and 15 in machine shops worked in one week, 1927, by occupation and sex*

#### FOUNDRIES

Occupation	Sex	Number of establishments	Number of employees	Average number of days worked by employees in one week	Per cent of employees in occupation who in one week worked each specified number of days						
					1	2	3	4	5	6	7
Chippers and rough grinders .....	Male....	379	3,857	5.2	1	2	3	12	30	51	1
Core makers.....	do.....	401	3,040	5.1	1	2	3	15	33	46	(1)
Do.....	Female..	41	324	4.9	2	4	2	15	45	31	—
Laborers.....	Male....	401	11,017	5.2	1	2	4	14	31	48	1
Molders, hand, bench.....	do.....	324	2,063	5.2	1	1	4	13	37	44	(1)
Molders, hand, floor.....	do.....	402	5,375	5.1	1	2	5	13	35	43	(1)
Molders, machine.....	do.....	220	3,102	5.1	1	2	4	16	39	39	—
Molders' helpers, floor.....	do.....	247	1,820	5.3	2	1	4	10	31	52	1
Pattern makers.....	do.....	259	1,512	5.6	(1)	1	1	4	23	70	(1)

#### MACHINE SHOPS

Assemblers.....	Male....	368	8,019	5.6	1	1	2	6	20	70	(1)
Boring-mill hands and operators.....	do.....	354	2,208	5.6	1	1	1	5	23	68	1
Drill-press hands and operators.....	do.....	433	4,759	5.5	1	1	2	7	22	67	(1)
Fitters and bench hands.....	do.....	332	6,661	5.7	(1)	1	2	4	16	76	1
Grinding-machine hands and operators.....	do.....	298	2,285	5.6	(1)	1	1	6	24	68	(1)
Laborers.....	do.....	459	8,342	5.6	1	1	2	5	17	73	1
Lathe hands and operators, engine.....	do.....	414	5,964	5.6	1	1	2	5	21	70	(1)
Lathe hands and operators, turret.....	do.....	343	3,167	5.5	(1)	1	2	9	22	65	(1)
Machinists.....	do.....	395	3,794	5.6	1	2	2	4	18	72	2
Machinists and toolmakers' helpers.....	do.....	269	1,671	5.6	1	2	2	4	16	73	3
Milling-machine hands and operators.....	do.....	343	2,872	5.6	(1)	1	1	5	22	70	(1)
Pattern makers.....	do.....	235	1,228	5.7	(1)	(1)	2	3	13	82	—
Planer hands and operators.....	do.....	339	1,818	5.6	(1)	1	1	5	23	68	1
Screw-machine hands and operators.....	do.....	213	1,520	5.4	1	1	2	11	25	60	(1)
Toolmakers.....	do.....	354	2,863	5.7	(1)	1	1	3	19	76	(1)

<sup>1</sup> Less than 1 per cent.

Index numbers of employment and of pay rolls in foundries and machine shops and for machine tools (machine shops engaged in making tools used in machine shops) are presented separately in Table 9 for each month July, 1922, to August, 1928, and for each of the years 1923 to 1927. The data as presented in all other tables of this report for foundries and machine shops include machine tools. Since the data as published by the bureau in monthly reports on

"Employment in selected manufacturing industries" are collected and compiled separately for machine tools, they are shown separately in this table. These numbers were computed from the amount or volume of employment and the amount of the pay rolls for each of the months and years, with the 1923 average number of employees and the 1923 average amount of pay rolls taken as the base, or 100 per cent.

During the period July, 1922, to August, 1928, the monthly volume of employment index in foundries and machine shops was highest (104.5) in July, 1923, and lowest (74.5) in September, 1924, and pay rolls were highest (107.3) in June, 1923, and lowest (70) in September, 1922 and 1924. Index numbers by years were: Employment, 100 in 1923, 80.6 in 1924, 80.7 in 1925, 86.7 in 1926, and 81.3 in 1927; and pay rolls were 100 in 1923, 78.8 in 1924, 81.8 in 1925, 90.3 in 1926, and 83.5 in 1927.

TABLE 9.—*Index numbers of employment and of pay rolls, July, 1922, to August, 1928, by month and year*

[Average for 1923=100]

#### FOUNDRIES AND MACHINE SHOPS

Month	Employment							Pay-roll totals						
	1922	1923	1924	1925	1926	1927	1928	1922	1923	1924	1925	1926	1927	1928
January.....		93.4	88.8	78.4	84.0	84.2	74.8		85.6	86.6	78.2	86.4	86.0	74.4
February.....		97.1	87.3	80.2	86.4	86.2	76.6		90.9	86.7	82.2	91.1	91.6	79.6
March.....		100.4	87.1	81.0	87.7	86.3	77.9		96.7	87.2	83.6	93.4	91.8	82.0
April.....		102.3	86.2	81.3	87.7	85.0	78.6		101.9	86.8	81.8	92.4	88.7	82.3
May.....		102.9	82.6	81.0	87.2	83.2	80.1		105.5	82.8	83.0	92.1	87.2	84.5
June.....		103.9	80.4	81.3	88.8	82.3	80.5		107.3	78.6	82.2	93.6	85.4	85.6
July.....	71.6	104.5	76.7	80.3	87.9	81.2	80.4	61.7	105.5	70.6	79.6	88.7	81.4	82.9
August.....	72.1	104.0	75.4	79.8	87.7	80.8	80.8	64.0	103.8	70.6	79.4	90.3	82.2	84.5
September.....	79.4	102.3	74.5	80.1	87.2	79.0		70.0	103.3	70.0	77.2	88.3	78.5	
October.....	83.5	99.1	74.7	80.9	86.4	77.4		75.1	102.8	72.6	82.8	90.5	77.6	
November.....	87.4	96.7	75.6	81.6	84.1	75.1		79.3	98.7	73.8	84.3	87.0	74.7	
December.....	91.3	93.4	78.0	82.7	85.3	74.9		86.6	98.1	79.1	87.1	89.9	76.7	
Average.....		100.0	80.6	80.7	86.7	81.3			100.0	78.8	81.8	90.3	83.5	

#### MACHINE TOOLS

January.....			92.5	82.2	102.1	102.8	90.0			94.6	86.2	113.6	113.2	100.0
February.....			94.0	83.5	102.5	102.0	92.4			97.0	88.6	114.2	112.7	106.4
March.....			94.1	82.9	103.9	100.7	94.4			97.4	87.7	115.5	112.1	111.1
April.....			91.5	83.1	103.4	98.8	96.9			95.4	88.2	115.2	107.8	114.8
May.....		110.0	87.9	83.7	102.1	96.2	99.6		108.0	91.5	90.0	112.4	107.1	117.6
June.....		109.0	85.3	85.1	101.5	95.1	101.3		110.0	87.6	91.7	112.1	105.5	120.2
July.....		106.2	78.8	86.5	101.3	92.3	102.8		103.5	75.7	93.2	109.5	98.5	117.1
August.....		81.7	68.2	80.5	92.4	82.6	97.2		83.1	65.4	88.1	101.9	91.2	114.0
September.....		100.8	76.8	90.0	102.3	92.1			100.4	73.9	92.0	111.1	101.3	
October.....		100.3	76.7	93.7	103.7	91.9			100.2	76.0	103.9	116.3	101.0	
November.....		95.0	77.8	97.5	104.2	90.3			96.1	78.1	108.4	117.2	99.8	
December.....		96.0	79.8	100.7	103.8	90.2			98.8	84.2	114.4	118.2	101.8	
Average.....		100.0	83.6	87.5	101.9	94.6			100.0	84.7	94.4	113.1	104.3	

#### IMPORTANCE OF FOUNDRIES AND MACHINE SHOPS

The importance of this industry may be judged from the fact that nearly all, if not all, other industries depend upon the products of foundries and machine shops for tools and machinery to carry on their business.



The figures shown in Table 10 were taken from the United States Census reports for 1914, 1919, 1921, 1923, and 1925. These figures are shown under six different headings: Foundries and machine shops; engines, steam, gas, and water; textile machinery; steam fittings, etc.; machine tools; pumps (hand and power) and pumping equipment. While these articles are practically all produced in foundries and machine shops, the different groups have grown to such importance as to be treated separately by the census. Under these six headings are shown for each of the five years, the number of establishments, the cost of material, the value of products, the average number of employees, the average number of wage earners, amounts paid to wage earners, and the average per capita yearly earnings of wage earners as computed by the Bureau of Labor Statistics.

TABLE 10.—*Establishments, cost of material, value of products, wage earners, earnings, and average per capita earnings, 1914, 1919, 1921, 1923, and 1925*

[From United States Census of Manufactures, 1925]

Industry	Number of establishments	Cost of material	Value of products	Average number of employees	Average number of wage earners	Amount paid to wage earners	Average per capita yearly earnings of wage earners
<b>Foundry and machine shops:</b>		<i>Millions</i>	<i>Millions</i>			<i>Millions</i>	
1914.....	10,640	\$358	\$867	421,149	362,471	\$244	\$673.56
1919.....	10,934	948	2,289	569,646	482,767	623	1,289.59
1921.....	9,013	653	1,566	390,816	321,363	412	1,283.16
1923.....	8,531	936	2,337	532,821	448,777	642	1,431.52
1925.....	8,154	884	2,233	481,212	397,838	591	1,485.03
<b>Engines, steam, gas, and water:</b>							
1914.....	446	31	72	36,106	29,657	21	722.28
1919.....	370	218	465	96,193	77,617	105	1,358.41
1921.....	296	112	199	43,691	35,567	52	1,462.17
1923.....	249	125	267	57,695	48,495	71	1,461.55
1925.....	220	146	314	59,394	51,099	74	1,440.05
<b>Textile machinery:</b>							
1914.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1919.....	432	46	122	35,772	31,823	37	1,147.87
1921.....	421	45	129	34,469	31,025	39	1,251.59
1923.....	428	50	141	40,041	35,672	46	1,290.16
1925.....	379	39	122	32,530	27,869	37	1,344.28
<b>Steam fittings, etc.:</b>							
1914.....	295	27	64	31,638	26,388	17	634.30
1919.....	261	72	160	43,791	36,686	46	1,246.87
1921.....	274	50	127	37,004	30,808	40	1,285.25
1923.....	236	83	222	51,127	44,141	65	1,468.17
1925.....	225	77	229	49,974	43,260	64	1,478.95
<b>Machine tools:</b>							
1914.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1919.....	403	59	212	61,630	53,111	66	1,246.05
1921.....	348	24	68	25,854	21,307	25	1,185.14
1923.....	350	41	137	40,101	33,373	47	1,418.42
1925.....	329	44	144	37,279	30,831	47	1,515.08
<b>Pumps, steam and other power:</b>							
1914.....	183	9	24	8,722	8,322	6	667.53
1919.....	239	36	85	17,154	16,072	20	1,227.70
1921.....	221	27	70	16,442	12,186	14	1,146.36
1923.....	229	34	93	19,124	14,550	20	1,373.92
1925.....	253	50	120	23,333	17,935	25	1,409.43
<b>Total:</b>							
1914.....	11,564	425	1,027	497,615	426,838	288	674.40
1919.....	12,639	1,379	3,333	824,186	698,076	896	1,283.89
1921.....	10,933	911	2,159	548,276	452,256	583	1,286.91
1923.....	10,023	1,269	3,196	740,909	625,008	891	1,426.33
1925.....	9,560	1,211	3,162	665,162	568,832	838	1,472.88

<sup>1</sup> Included in foundry and machine shops prior to 1919.

A comparison of the figures for the five census years shows that the number of employees for 1919 is greater than for either of the other years, while the 1925 average per capita yearly earnings are greater

than for any other year. The conditions for the year 1919 were abnormal. The demands upon the industry caused by the World War were still in effect and were largely responsible for the unusual number of employees, the large number of establishments, the high value of the products, and the large sum paid to wage earners. While the figures for 1919 are abnormally high, those for 1921 are abnormally low. A period of great depression in the industry followed the census for 1919, which extended into the census for 1921. The figures for 1923 show that the industry had by that time recovered from the slump of 1921, and had entered upon a period of development more nearly approximating natural or normal growth in the industry than is shown by the figures for either 1919 or 1921. The figures for 1925, compared with those for 1923, show decreases in number of establishments and of wage earners and in amount paid to wage earners, and also an increase in the average per capita yearly earnings.

### SCOPE AND METHOD

The figures presented in this bulletin are limited to wage earners and cover all workers of this class, beginning with those who receive the raw materials and supplies, including all who perform the various operations of manufacture, and ending with those who pack or otherwise prepare the product for shipment. Executive employees, clerks, employees engaged in construction or repair of buildings, employees in forge and boiler shops, and those whose duties were mainly supervisory are excluded.

The 1927 study of the industry, like those of former years, covered a representative group of establishments in each State where foundries and machine shops are of material importance. On account of the very large variety of products manufactured in machine shops, the study was limited to those establishments in which the machinery used was fairly comparable. The machine shops included in the study are engaged in the machining and assembling of parts for and the construction of engines; of textile, mining, laundry, woodworking, excavating, road-building, hoisting, steel-mill, and rolling-mill machinery; of ice, brick, rubber, shoe, and sugar-making machinery; of cotton gins, elevators, conveyors, pumps, printing presses, and machine tools (machines used in machine shops), etc. A number of machine shops which were engaged in repair work are also included. While the machines used in the establishments included in the study vary in type and size with the product manufactured, the operations are essentially the same. No machine shops were included whose principal product was agricultural implements, automobiles or automobile parts, electric dynamos, motors, magnets, or other electrical units, locomotive railroad cars or car wheels, cash registers, calculating machines, typewriters, sewing machines, hardware, stoves or stove equipment.

The foundries included were mainly engaged in casting parts for the same class of products as those made in the machine shops covered in the study. In a large number of cases data were obtained from one company or plant for both a foundry and a machine shop. No forge or boiler shop was included if it was operated as a separate unit.

The study covered 417 foundries and 526 machine shops located in 28 States. In selecting establishments from which to obtain data the

bureau undertook to represent all States in which the industry is of material importance, the measure of importance being the number of wage earners as reported by the United States Census of Manufactures.

TABLE 11.—*Number of wage earners in 1925 as reported by the United States Census of Manufactures and the number of establishments and of wage earners for which 1927 data are presented in this report, by State*

State	Wage earners in foundries and machine shops reported by U. S. Census in 1925	Foundries		Machine shops		Foundries and machine shops combined	
		Establishments	Wage earners	Establishments	Wage earners	Establishments	Wage earners
Alabama.....	2,356	4	265	6	365	10	630
California.....	16,434	21	1,065	27	2,239	48	3,304
Colorado.....	3,914	3	266	-----	-----	3	266
Connecticut.....	22,074	16	1,537	19	3,419	35	4,956
Georgia.....	3,286	7	493	8	336	15	829
Illinois.....	59,331	28	2,895	38	10,133	66	13,028
Indiana.....	24,339	16	2,478	16	2,976	32	5,454
Iowa.....	5,942	11	758	9	773	20	1,531
Kansas.....	2,398	9	228	10	309	19	537
Kentucky.....	1,983	7	164	9	429	16	593
Louisiana.....	1,576	5	219	6	252	11	471
Maine.....	968	4	182	4	467	8	649
Maryland.....	3,917	8	486	8	725	16	1,211
Massachusetts.....	40,107	28	3,148	40	7,791	68	10,939
Michigan.....	51,891	39	4,473	36	5,971	75	10,444
Minnesota.....	6,123	5	443	6	656	11	1,099
Missouri.....	8,458	12	667	21	1,343	33	2,010
New Hampshire.....	2,772	8	195	9	685	17	880
New Jersey.....	25,111	17	2,437	31	4,097	48	6,534
New York.....	58,400	25	2,810	26	9,017	51	11,827
Ohio.....	75,369	52	4,573	89	14,267	141	18,840
Oregon.....	1,870	7	224	6	313	13	537
Pennsylvania.....	75,031	40	5,119	45	12,169	85	17,288
Rhode Island.....	6,072	8	741	13	1,918	21	2,659
Tennessee.....	3,471	7	419	8	458	15	877
Texas.....	4,323	10	439	14	853	24	1,292
Washington.....	3,254	7	271	7	481	14	752
Wisconsin.....	30,965	13	1,948	15	4,337	28	6,285
All other States.....	27,097	-----	-----	-----	-----	-----	-----
Total.....	568,832	417	38,943	526	86,779	943	125,722

The actual number of plants and of wage earners covered in both foundries and machine shops in each State in 1927 are shown in Table 11. For comparison the figures as reported by the United States Census of Manufactures for 1925, the latest year for which figures are available, are also shown. The table shows that 95 per cent of the wage earners employed in foundries and machine shops are located in the 28 States covered by the bureau and that data for 22 per cent of them are shown in this report.

The data included in the 1927 study were taken by agents of the bureau for practically all establishments directly from the pay rolls, time-clock cards, and other records of the establishments for a representative pay period in each of the years covered. A few establishments prepared data for the bureau from their records. A very large proportion of the establishments covered in 1927 were also included in 1923 and 1925. Data were taken for only part of the total number of wage earners in a few very large establishments, as the inclusion of all of them would have tended to impair the representative averages for the States in which these establishments are located. A very large per cent of the establishments included in the report pays employees every week compared with a small per cent that pays every two weeks, and very small per cent that pays twice each month. Data for those that pay every two weeks or half month were so taken as to make it possible to present figures for one week for wage earners

in all establishments. Approximately 90 per cent of the 1927 data are for a pay roll period in June, July, August, or September. The averages, therefore, are fairly representative of wage conditions in those months.

### GENERAL TABLES

In addition to the text tables already shown five general tables, which show the data in considerable detail, are presented as follows,

TABLE A.—Average number of days on which employees worked: average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State.

This table shows for each occupation and State all of the various averages which have been computed from the data collected in 1927. These are the averages of the days on which employees actually worked in one week, of full-time hours per week, of hours actually worked in one week, of earnings per hour, and of full-time and of actual earnings in one week.

The presentation in this table in parallel columns of "Average full-time hours per week" and "Average hours actually worked in one week" is for the purpose of easy comparison of the hours that would have been worked in one week had all employees in the occupation worked no more nor less than full time with the average hours actually worked in the week. One shows the full-time hours per week under normal conditions, while the other shows the hours actually worked in one week by all employees in the occupation.

Tables B, C, D, and E are distribution tables and are limited to 23 principal occupations—8 in foundries and 15 in machine shops.

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State

#### FOUNDRIES

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Chippers and rough grinders, male:									
Alabama.....	2	23	5.5	54.6	56.6	103.7	\$0.313	\$17.09	\$17.74
California.....	21	101	5.6	46.6	44.3	85.1	.616	28.71	27.27
Colorado.....	3	40	5.5	45.3	47.7	105.3	.434	19.66	20.74
Connecticut.....	16	114	5.4	51.0	48.3	94.7	.507	25.86	24.48
Georgia.....	4	38	5.1	57.5	48.3	84.0	.240	13.80	11.61
Illinois.....	24	293	5.0	48.6	45.2	93.0	.610	29.65	27.53

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-employees	Number of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Chippers and rough grinders, male—Continued.									
Indiana.....	13	166	5.1	51.5	46.7	90.7	\$0.504	\$25.96	\$23.55
Iowa.....	11	70	5.5	53.3	49.7	93.2	.492	26.22	24.43
Kansas.....	8	38	5.3	54.0	48.3	89.4	.393	21.22	18.97
Kentucky.....	5	20	5.3	51.8	49.8	96.1	.401	20.77	19.97
Louisiana.....	3	34	5.4	47.5	43.4	91.4	.362	17.20	15.69
Maine.....	3	24	5.1	52.0	45.9	88.3	.473	24.60	21.68
Maryland.....	7	37	5.0	52.8	45.5	86.2	.442	23.34	20.09
Massachusetts.....	28	378	5.6	49.8	47.2	94.8	.537	26.74	25.32
Michigan.....	38	380	5.1	51.5	44.4	86.2	.574	29.56	25.51
Minnesota.....	5	43	5.7	54.0	50.3	93.1	.573	30.94	28.85
Missouri.....	11	51	5.5	52.8	48.3	91.5	.499	26.35	24.09
New Hampshire.....	5	27	5.6	50.0	48.0	96.0	.500	25.00	24.03
New Jersey.....	17	250	4.9	51.5	44.9	87.2	.570	29.36	25.58
New York.....	23	296	5.2	50.4	48.8	96.8	.594	29.94	29.00
Ohio.....	50	486	5.2	52.7	46.7	88.6	.499	26.30	23.32
Oregon.....	7	23	5.3	45.0	40.9	90.9	.576	25.92	23.57
Pennsylvania.....	38	470	5.3	51.8	46.2	89.2	.538	27.87	24.85
Rhode Island.....	8	120	5.1	51.4	46.3	90.1	.516	26.52	23.90
Tennessee.....	4	33	5.0	49.3	41.7	84.6	.337	16.61	14.04
Texas.....	5	22	5.6	52.3	47.2	90.2	.364	19.04	17.19
Washington.....	7	25	5.7	47.7	44.9	94.1	.648	30.91	29.12
Wisconsin.....	13	254	5.4	51.9	48.6	93.6	.597	30.98	29.00
Total.....	379	3,857	5.2	51.1	46.6	91.2	.537	27.44	25.04
Core makers, male:									
Alabama.....	3	19	5.5	54.2	50.7	93.5	.544	29.48	27.57
California.....	21	117	5.2	45.6	40.6	89.0	.919	41.91	37.26
Colorado.....	3	20	5.5	45.8	42.5	92.8	.771	35.31	32.73
Connecticut.....	16	96	5.2	49.7	44.8	90.1	.774	38.47	34.63
Georgia.....	7	31	5.3	53.5	50.8	95.0	.434	23.22	22.05
Illinois.....	26	227	5.0	49.7	43.0	86.5	.818	40.65	35.20
Indiana.....	16	170	5.1	51.0	46.2	90.6	.664	33.86	30.70
Iowa.....	11	78	5.4	53.9	50.0	92.8	.719	38.75	35.92
Kansas.....	8	15	5.2	54.0	47.9	88.7	.563	30.40	26.96
Kentucky.....	6	9	5.3	47.8	48.9	102.3	.653	31.21	31.89
Louisiana.....	5	14	5.4	50.0	43.4	86.8	.664	33.20	28.77
Maine.....	4	9	5.0	49.8	42.2	84.7	.555	27.64	26.98
Maryland.....	7	52	4.8	50.5	41.5	82.2	.650	32.83	26.98
Massachusetts.....	28	163	5.3	49.1	44.4	90.4	.823	40.41	36.54
Michigan.....	35	338	5.2	51.4	45.4	88.3	.714	36.70	32.39
Minnesota.....	5	51	5.4	53.2	46.3	87.0	.721	38.36	33.36
Missouri.....	12	63	5.7	50.9	48.0	94.3	.750	38.18	36.03
New Hampshire.....	7	9	4.9	49.7	42.6	85.7	.732	36.38	31.21
New Jersey.....	17	130	5.3	50.7	45.3	89.3	.804	40.76	36.43
New York.....	24	220	5.2	48.6	46.2	95.1	.765	37.18	35.33
Ohio.....	51	393	5.2	51.1	44.9	87.9	.793	40.52	35.62
Oregon.....	7	12	5.2	45.5	39.9	87.7	.831	37.81	33.17
Pennsylvania.....	38	512	4.9	50.4	41.4	82.1	.789	39.77	32.68
Rhode Island.....	8	52	5.4	51.2	47.4	92.6	.619	31.69	29.31
Tennessee.....	7	41	5.1	49.1	42.6	86.8	.607	29.80	25.86
Texas.....	9	26	5.8	50.4	49.5	98.2	.595	29.99	29.45
Washington.....	7	17	5.6	47.0	43.2	91.9	.798	37.51	34.51
Wisconsin.....	13	156	4.8	52.4	40.8	77.9	.732	38.36	29.85
Total.....	401	3,040	5.1	50.4	44.3	87.9	.755	38.05	33.44
Core makers, female:									
Illinois.....	4	52	5.2	48.9	43.4	88.8	.555	27.14	24.07
Indiana.....	2	18	4.9	50.0	41.9	83.8	.564	28.20	23.59
Iowa.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	2	5	5.4	47.0	46.7	99.4	.446	20.96	20.82
Massachusetts.....	2	3	6.0	48.0	45.0	100.0	.659	31.63	31.65
Michigan.....	7	55	4.1	51.3	34.2	66.7	.421	21.60	14.39
Minnesota.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	4	49	4.9	49.1	40.1	81.7	.474	23.27	19.00
New York.....	7	54	5.0	45.1	41.7	92.5	.530	23.90	22.09
Ohio.....	2	14	5.9	45.7	45.1	98.7	.466	21.50	21.00
Pennsylvania.....	3	29	4.9	48.5	41.5	85.6	.427	20.71	17.74
Rhode Island.....	2	7	5.6	50.9	49.2	96.7	.420	21.38	20.64
Wisconsin.....	4	31	5.0	46.9	38.3	81.7	.517	24.25	19.83
Total.....	41	324	4.9	48.4	40.6	83.9	.491	23.76	19.92

<sup>1</sup> Included in total.

# 34 WAGES AND HOURS—FOUNDRIES AND MACHINE SHOPS

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Crane operators, male:									
Alabama.....	3	5	6.0	54.3	62.2	114.5	\$0.577	\$31.33	\$35.90
California.....	12	26	5.3	48.6	45.0	92.6	.653	31.98	29.63
Colorado.....	2	5	6.0	45.6	55.5	121.7	.598	27.27	33.16
Connecticut.....	11	41	5.6	51.9	53.8	103.7	.538	27.92	28.93
Georgia.....	4	4	6.0	53.8	61.9	115.1	.562	19.48	22.40
Illinois.....	15	53	5.5	50.8	56.6	111.4	.611	31.04	34.60
Indiana.....	8	19	5.4	51.2	52.4	102.3	.500	25.60	26.20
Iowa.....	6	15	5.9	55.5	57.9	104.3	.555	30.80	32.13
Kentucky.....	2	2	5.5	45.0	50.3	111.8	.457	20.57	22.98
Louisiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine.....	3	4	5.8	48.0	56.8	118.3	.575	27.60	32.66
Maryland.....	4	4	5.8	51.8	51.0	98.5	.471	24.40	21.04
Massachusetts.....	18	44	5.5	49.2	49.8	101.2	.575	28.29	28.65
Michigan.....	18	65	5.0	53.0	49.8	94.0	.586	31.06	29.21
Minnesota.....	4	14	5.4	52.9	48.5	91.7	.506	26.77	24.56
Missouri.....	8	18	6.1	49.4	57.9	117.2	.655	32.36	37.90
New Jersey.....	12	81	5.5	54.8	54.5	99.5	.547	29.98	29.81
New York.....	13	76	5.5	51.0	53.4	98.9	.664	35.86	35.48
Ohio.....	34	131	5.5	53.5	55.1	99.3	.576	31.97	31.72
Oregon.....	4	7	5.6	44.8	44.9	100.2	.680	30.46	30.56
Pennsylvania.....	36	154	5.4	52.0	51.0	98.1	.551	28.65	28.10
Rhode Island.....	4	6	5.7	51.2	57.0	111.3	.479	24.32	27.28
Tennessee.....	3	9	5.4	49.6	53.3	107.5	.415	22.07	23.71
Texas.....	2	2	6.0	57.0	61.4	107.7	.391	22.29	24.00
Washington.....	4	7	5.7	47.4	48.4	102.1	.677	32.09	32.81
Wisconsin.....	11	78	5.5	53.3	54.1	101.5	.565	30.01	30.50
Total.....	242	875	5.5	52.6	53.0	100.8	.575	30.25	30.47
Cupola tenders, male:									
Alabama.....	4	5	6.0	52.9	59.2	111.9	.407	21.53	24.06
California.....	21	25	5.5	46.4	45.2	97.4	.747	34.66	33.77
Colorado.....	2	2	5.0	46.0	44.9	97.6	.806	37.08	36.19
Connecticut.....	16	38	5.4	51.6	50.8	98.4	.586	30.24	29.78
Georgia.....	7	14	5.6	55.7	53.3	95.7	.342	19.05	18.21
Illinois.....	26	38	5.4	49.9	49.4	99.0	.672	33.53	33.24
Indiana.....	15	22	5.6	52.4	53.3	101.7	.600	31.44	31.98
Iowa.....	10	14	5.9	51.8	55.7	107.5	.580	30.04	32.30
Kansas.....	9	10	5.5	53.6	50.3	93.8	.493	26.42	24.83
Kentucky.....	7	9	5.3	49.8	50.8	102.0	.469	23.36	23.86
Louisiana.....	5	9	4.9	51.1	43.2	84.5	.526	26.88	22.72
Maine.....	4	4	5.2	49.5	45.7	92.3	.581	28.76	26.54
Maryland.....	8	15	5.2	52.8	47.8	90.5	.483	25.50	23.11
Massachusetts.....	26	29	5.5	50.0	48.1	96.2	.734	36.70	35.27
Michigan.....	30	38	5.4	52.5	52.5	100.0	.665	34.91	34.87
Minnesota.....	5	6	5.2	54.5	49.1	90.1	.578	31.50	28.38
Missouri.....	11	14	5.9	52.8	54.4	103.0	.602	31.79	32.71
New Hampshire.....	8	8	5.3	49.9	45.5	91.2	.593	29.59	26.96
New Jersey.....	17	37	5.5	53.6	55.7	103.9	.636	34.09	35.39
New York.....	25	42	5.6	51.3	55.9	102.9	.649	35.24	36.26
Ohio.....	49	66	5.3	53.3	48.7	91.4	.654	34.86	31.90
Oregon.....	7	9	5.4	45.9	44.7	97.4	.678	31.12	30.30
Pennsylvania.....	37	78	5.2	51.4	48.0	93.4	.642	33.00	30.78
Rhode Island.....	7	7	5.4	51.0	49.0	96.1	.689	35.14	33.75
Tennessee.....	7	10	5.8	49.8	48.4	97.2	.406	20.22	19.64
Texas.....	10	11	5.5	51.5	48.0	93.2	.510	26.27	24.50
Washington.....	7	7	5.9	47.3	47.3	100.0	.759	35.90	35.87
Wisconsin.....	13	35	5.7	53.6	56.9	106.2	.605	32.43	34.39
Total.....	393	602	5.4	51.8	50.7	97.9	.620	32.12	31.43

<sup>1</sup> Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Laborers, male:									
Alabama.....	4	67	5.3	54.0	53.8	99.6	\$0.306	\$16.52	\$16.47
California.....	20	258	5.5	48.4	46.1	95.2	.557	26.96	25.67
Colorado.....	2	24	5.5	51.7	49.3	95.4	.438	22.64	21.59
Connecticut.....	16	490	5.3	53.4	49.8	93.3	.478	25.53	23.77
Georgia.....	7	165	5.4	53.5	51.3	95.9	.256	13.70	13.11
Illinois.....	28	902	5.2	50.5	47.7	94.5	.549	27.72	26.14
Indiana.....	15	839	5.1	51.5	49.2	95.5	.477	24.57	23.46
Iowa.....	11	186	5.5	54.1	51.0	94.3	.473	25.59	24.15
Kansas.....	6	28	5.0	53.7	45.3	84.4	.393	21.10	17.82
Kentucky.....	4	23	4.6	47.5	45.6	96.0	.380	18.05	17.35
Louisiana.....	4	34	4.9	51.6	43.0	83.3	.353	18.21	15.18
Maine.....	3	39	5.1	53.0	46.6	87.9	.476	25.23	22.19
Maryland.....	7	135	4.9	53.1	44.4	83.6	.381	20.23	16.91
Massachusetts.....	28	695	5.3	50.7	47.4	93.5	.501	25.40	23.75
Michigan.....	39	1,521	5.1	52.3	46.5	88.9	.529	27.67	24.64
Minnesota.....	5	105	5.4	54.3	49.7	91.5	.491	26.66	24.42
Missouri.....	12	145	5.1	51.8	46.1	89.0	.445	23.05	20.55
New Hampshire.....	6	31	5.0	47.4	41.8	88.2	.466	22.09	19.48
New Jersey.....	17	705	5.1	53.2	48.5	91.2	.468	24.90	22.71
New York.....	25	741	5.2	52.0	51.1	98.3	.525	27.30	26.11
Ohio.....	52	1,237	5.2	54.2	48.9	90.2	.475	25.75	23.23
Oregon.....	7	53	5.1	45.3	39.7	87.6	.514	23.28	20.44
Pennsylvania.....	40	1,602	4.9	51.3	44.4	86.5	.497	25.50	22.06
Rhode Island.....	8	193	5.6	52.2	52.9	101.3	.487	25.42	25.73
Tennessee.....	7	87	5.3	50.0	46.1	92.2	.296	14.80	13.63
Texas.....	9	196	5.5	51.4	48.2	93.8	.333	17.12	16.03
Washington.....	6	55	5.5	47.1	44.1	93.6	.560	26.38	24.69
Wisconsin.....	13	461	5.5	53.5	52.5	98.1	.539	28.84	28.31
Total.....	401	11,017	5.2	52.1	47.9	91.9	.491	25.58	23.54
Molders, hand, bench, male:									
California.....	18	60	5.2	45.5	40.5	89.0	.941	42.82	38.10
Colorado.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Connecticut.....	13	111	4.8	54.2	43.7	80.6	.683	37.02	29.84
Georgia.....	4	34	5.1	56.0	46.0	82.2	.595	33.32	27.40
Illinois.....	22	134	5.3	49.9	46.7	93.6	.774	38.62	36.16
Indiana.....	14	109	5.3	50.8	45.8	90.2	.796	40.44	36.47
Iowa.....	7	53	5.6	53.8	54.1	100.6	.747	40.19	40.41
Kansas.....	6	8	5.6	53.5	50.7	94.8	.582	31.14	29.52
Kentucky.....	5	11	5.3	49.1	53.2	108.4	.567	27.84	30.17
Louisiana.....	2	4	4.8	52.0	39.5	76.0	.530	27.56	20.94
Maine.....	4	12	5.3	52.2	46.9	89.8	.685	35.76	32.14
Maryland.....	6	31	5.0	53.4	44.5	83.3	.704	37.59	31.35
Massachusetts.....	27	295	5.3	49.0	43.5	88.8	.900	44.10	39.14
Michigan.....	35	294	5.0	49.7	42.6	85.7	.841	41.80	35.85
Minnesota.....	4	36	5.5	53.4	46.0	86.2	.851	45.44	39.15
Missouri.....	6	18	5.0	52.2	42.5	81.4	.708	36.96	30.10
New Hampshire.....	6	25	5.2	51.7	47.3	91.5	.694	35.88	32.83
New Jersey.....	15	73	5.2	49.4	44.3	89.7	.909	44.90	40.30
New York.....	20	157	5.3	50.3	47.7	94.8	.734	36.92	34.98
Ohio.....	43	237	5.1	49.1	42.8	87.2	.790	38.79	33.85
Oregon.....	5	8	4.8	45.7	38.3	83.8	.820	37.47	31.43
Pennsylvania.....	28	185	5.1	52.0	45.4	87.3	.749	38.95	34.01
Rhode Island.....	8	57	4.8	50.7	40.6	80.1	.815	41.32	33.07
Tennessee.....	4	34	4.9	49.3	42.0	85.2	.550	27.12	23.13
Texas.....	6	15	5.8	51.6	55.7	107.9	.643	33.18	35.83
Washington.....	4	11	5.9	46.5	44.9	96.6	.816	37.94	36.65
Wisconsin.....	11	50	4.8	52.5	42.1	80.2	.694	36.44	29.23
Total.....	324	2,063	5.2	50.5	44.5	88.1	.789	39.84	35.12

<sup>1</sup> Included in total.

# 36 WAGES AND HOURS—FOUNDRIES AND MACHINE SHOPS

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Molders, hand, floor, male:									
Alabama.....	4	53	5.6	54.1	53.5	98.9	\$0.714	\$38.63	\$38.19
California.....	19	205	5.2	45.5	41.0	90.1	.960	43.68	39.34
Colorado.....	3	49	5.1	45.5	42.3	93.0	.805	36.63	34.08
Connecticut.....	16	244	5.1	49.4	43.8	88.7	.811	40.06	35.55
Georgia.....	7	68	4.9	53.4	42.9	80.3	.720	38.45	30.93
Illinois.....	28	361	4.8	47.3	42.7	90.3	.831	39.31	35.46
Indiana.....	15	288	5.2	50.9	45.2	88.8	.709	36.09	32.06
Iowa.....	11	130	5.4	52.4	49.9	95.2	.816	42.76	40.68
Kansas.....	9	44	5.3	53.8	51.1	95.0	.623	33.52	31.85
Kentucky.....	7	35	5.0	49.3	44.9	91.1	.657	32.39	29.49
Louisiana.....	5	41	5.1	50.3	43.0	85.5	.703	35.36	30.21
Maine.....	4	35	5.1	47.8	42.6	89.1	.667	31.88	28.42
Maryland.....	7	96	5.0	50.2	42.6	84.9	.773	38.80	32.94
Massachusetts.....	27	367	5.3	48.4	43.1	89.0	.971	47.00	41.82
Michigan.....	33	417	5.0	51.2	43.3	84.6	.789	40.40	34.19
Minnesota.....	4	45	5.0	52.4	44.8	85.5	.667	34.95	29.86
Missouri.....	12	146	5.5	50.5	45.8	90.7	.817	41.26	37.48
New Hampshire.....	8	49	4.6	49.1	39.6	80.7	.735	36.09	29.10
New Jersey.....	16	262	5.1	50.4	44.4	88.1	.888	44.76	39.45
New York.....	25	326	5.0	49.2	44.3	90.0	.832	40.93	36.88
Ohio.....	51	832	5.2	50.7	44.2	87.2	.848	42.99	37.46
Oregon.....	7	38	4.8	45.6	37.1	81.4	.865	39.44	32.12
Pennsylvania.....	40	739	5.0	50.6	42.7	84.4	.817	41.34	34.84
Rhode Island.....	8	106	5.4	50.7	47.1	92.9	.759	38.48	35.78
Tennessee.....	7	87	4.9	49.4	41.5	84.0	.696	34.38	28.92
Texas.....	10	69	5.6	50.3	49.4	98.2	.732	36.82	36.15
Washington.....	7	67	5.5	46.9	42.3	90.2	.843	39.54	35.61
Wisconsin.....	12	176	4.8	49.9	41.2	82.6	.800	39.92	32.95
Total.....	402	5,375	5.1	49.9	43.8	87.8	.820	40.92	35.91
Molders, machine, male:									
California.....	6	16	4.9	49.7	45.7	92.0	.955	47.46	43.68
Colorado.....	2	4	5.0	45.0	39.2	87.1	.638	28.71	24.99
Connecticut.....	8	111	5.2	54.5	48.4	88.8	.648	35.32	31.34
Georgia.....	2	17	5.4	54.1	44.9	83.0	.706	38.19	31.64
Illinois.....	13	217	5.2	50.5	46.4	91.9	.787	39.74	36.52
Indiana.....	12	336	4.9	50.1	43.2	86.2	.724	36.27	31.25
Iowa.....	7	68	5.2	50.6	45.9	90.7	.691	34.96	31.70
Kansas.....	2	6	4.2	54.0	39.4	73.0	.584	31.54	23.01
Kentucky.....	3	12	5.0	44.6	40.5	90.8	.569	25.38	23.05
Louisiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maryland.....	4	29	5.3	53.6	47.3	88.2	.639	34.25	30.22
Massachusetts.....	23	325	5.4	48.5	44.5	91.8	.836	40.55	37.18
Michigan.....	21	456	4.9	51.0	42.8	83.9	.730	37.23	31.25
Minnesota.....	3	25	5.0	53.1	44.9	84.6	.666	35.36	29.89
Missouri.....	3	28	5.6	54.0	46.1	85.4	.657	35.48	30.27
New Hampshire.....	2	19	5.8	49.9	48.9	98.0	.793	39.57	38.75
New Jersey.....	15	220	4.9	52.5	43.9	83.6	.757	39.74	33.21
New York.....	17	312	4.9	47.5	42.6	89.7	.787	37.38	33.51
Ohio.....	25	247	5.1	50.1	44.2	88.2	.765	38.33	33.79
Pennsylvania.....	26	214	4.7	49.7	41.3	83.1	.700	34.79	28.91
Rhode Island.....	7	101	5.2	51.8	47.0	90.7	.772	39.99	36.27
Tennessee.....	2	7	4.6	49.4	39.4	79.8	.444	21.93	17.52
Texas.....	3	19	5.2	50.2	44.8	89.2	.708	35.54	31.75
Washington.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Wisconsin.....	11	288	5.3	51.3	47.0	91.6	.772	39.60	36.30
Total.....	220	3,102	5.1	50.4	44.3	87.9	.753	37.95	33.32

<sup>1</sup> Included in total.



TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ploy-ees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Molders' helpers, floor, male:									
Alabama.....	4	62	5.5	54.0	59.4	110.0	\$0.325	\$17.55	\$19.33
California.....	11	53	5.4	46.0	43.3	94.1	.616	28.34	26.67
Colorado.....	3	59	5.1	48.3	44.9	93.0	.466	22.51	20.92
Connecticut.....	12	82	5.3	50.0	47.3	94.6	.533	26.65	25.22
Georgia.....	5	51	5.2	54.6	50.6	92.7	.259	14.14	13.11
Illinois.....	17	102	4.8	50.5	44.2	87.5	.543	27.42	23.96
Indiana.....	10	103	5.2	49.3	47.2	95.7	.440	21.69	20.79
Iowa.....	7	24	5.8	52.0	50.7	97.5	.431	22.41	21.85
Kansas.....	8	46	5.2	53.8	49.9	92.8	.372	20.01	18.59
Kentucky.....	7	20	5.3	47.4	47.5	100.2	.379	17.96	18.02
Louisiana.....	5	52	5.3	48.8	45.1	92.4	.404	19.72	18.24
Maine.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maryland.....	4	21	5.3	50.0	45.8	91.6	.451	22.55	20.63
Massachusetts.....	20	98	5.4	52.2	46.8	89.7	.528	27.56	24.71
Michigan.....	12	108	5.4	51.4	48.0	93.4	.597	30.69	28.66
Minnesota.....	3	30	4.9	53.4	45.7	85.6	.438	23.39	20.02
Missouri.....	9	99	5.4	53.0	51.4	97.0	.499	26.45	25.66
New Jersey.....	9	106	5.2	52.7	48.1	91.3	.493	25.98	23.70
New York.....	17	80	5.2	50.8	47.2	92.9	.576	29.26	27.17
Ohio.....	24	207	5.4	52.8	49.6	93.9	.473	24.97	23.48
Oregon.....	5	16	5.4	45.6	43.5	95.4	.596	27.18	25.94
Pennsylvania.....	24	224	5.1	51.1	43.8	85.7	.546	27.90	23.93
Rhode Island.....	4	10	5.5	50.6	51.8	102.4	.526	26.62	27.27
Tennessee.....	6	66	5.4	48.8	45.2	92.6	.313	15.27	14.15
Texas.....	8	38	5.5	51.6	48.3	93.6	.398	20.54	19.20
Washington.....	5	22	5.2	47.0	40.8	86.8	.617	29.00	25.17
Wisconsin.....	7	38	5.3	52.4	45.5	86.8	.498	26.10	22.65
Total.....	247	1,820	5.3	51.2	47.4	92.6	.484	24.78	22.91
Pattern makers, male:									
Alabama.....	3	17	5.6	54.0	50.5	93.5	.785	42.39	39.65
California.....	11	33	5.5	45.7	42.1	92.1	1.003	45.84	42.28
Colorado.....	2	4	4.3	44.0	32.6	74.1	.899	39.56	29.33
Connecticut.....	4	18	5.4	55.6	49.4	88.8	.651	36.20	32.17
Georgia.....	4	15	5.7	57.6	49.9	86.6	.669	38.53	33.36
Illinois.....	12	139	5.4	48.8	43.8	89.8	.891	43.48	39.01
Indiana.....	10	89	5.6	50.1	51.2	102.2	.932	46.69	47.71
Iowa.....	8	17	5.1	51.6	44.1	85.5	.685	35.35	30.22
Kansas.....	8	11	5.6	52.9	47.7	90.2	.722	38.19	34.45
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Louisiana.....	2	3	6.0	49.3	46.0	93.3	.759	37.42	34.93
Maine.....	3	14	5.6	47.9	46.4	96.9	.629	30.13	29.16
Maryland.....	7	20	4.8	48.9	41.3	84.5	.741	36.23	30.57
Massachusetts.....	22	154	5.6	48.8	46.7	95.7	.752	36.70	35.12
Michigan.....	29	139	5.3	51.4	44.0	85.6	.846	43.48	37.21
Minnesota.....	5	25	5.8	49.7	47.4	95.4	.730	36.28	34.60
Missouri.....	7	35	6.0	46.5	45.7	93.3	1.070	49.76	48.90
New Hampshire.....	2	8	4.8	50.0	40.4	80.8	.773	38.65	31.22
New Jersey.....	13	137	5.6	50.1	52.1	104.0	.862	43.19	44.93
New York.....	20	115	5.6	50.0	50.5	101.0	.815	40.75	41.15
Ohio.....	30	178	5.8	50.8	49.3	97.0	.836	42.47	41.16
Oregon.....	2	8	5.1	46.5	38.7	83.2	.912	42.41	35.28
Pennsylvania.....	30	161	5.7	51.0	48.7	95.5	.836	42.64	40.69
Rhode Island.....	3	11	5.8	51.0	52.6	103.1	.662	33.76	34.83
Tennessee.....	5	13	5.5	49.5	46.4	93.7	.876	43.36	40.65
Texas.....	4	6	5.2	51.3	44.5	86.7	.713	36.58	31.73
Washington.....	2	7	6.0	45.1	44.1	97.8	.902	40.68	39.76
Wisconsin.....	10	132	5.8	52.8	49.0	93.7	.780	40.79	38.19
Total.....	259	1,512	5.6	50.3	47.7	94.8	.830	41.75	39.62

<sup>1</sup> Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Rough carpenters, male:									
Alabama.....	3	6	5.3	54.1	47.2	87.2	\$0.571	\$30.89	\$26.98
California.....	20	28	5.5	46.0	44.1	95.9	.732	33.67	32.28
Colorado.....	3	13	5.8	47.4	47.1	99.4	.600	28.44	28.27
Connecticut.....	13	27	5.4	53.5	49.7	92.9	.573	30.66	28.48
Georgia.....	4	11	5.5	56.4	46.5	82.4	.422	23.80	19.58
Illinois.....	11	32	5.2	51.0	44.6	87.5	.599	30.55	26.70
Indiana.....	10	22	5.3	49.4	48.3	97.8	.554	27.37	26.76
Iowa.....	7	13	5.7	52.5	53.4	101.7	.445	23.38	23.75
Kansas.....	4	5	5.8	51.2	50.4	98.4	.420	21.50	21.19
Kentucky.....	2	3	4.0	46.7	37.3	79.9	.453	21.16	16.87
Louisiana.....	2	7	5.3	46.3	43.6	94.2	.496	22.96	21.64
Maine.....	3	4	5.3	48.5	45.0	92.8	.586	28.42	26.35
Maryland.....	6	8	5.1	52.5	44.3	84.4	.583	30.61	25.79
Massachusetts.....	26	62	5.8	49.0	47.6	97.1	.640	31.36	30.44
Michigan.....	24	73	5.6	51.7	48.5	93.8	.596	30.81	28.58
Minnesota.....	5	12	5.5	51.8	50.9	98.3	.575	29.79	29.26
Missouri.....	8	11	4.8	52.0	43.8	84.2	.577	30.00	25.26
New Hampshire.....	3	4	5.8	50.5	48.3	95.6	.496	25.05	23.94
New Jersey.....	13	30	5.6	51.0	50.5	99.0	.620	31.62	31.34
New York.....	22	39	5.6	50.9	52.2	102.6	.614	32.78	33.66
Ohio.....	36	57	5.5	51.1	48.5	94.9	.671	34.29	32.66
Oregon.....	7	7	5.3	45.8	39.7	86.7	.673	30.82	26.08
Pennsylvania.....	32	86	5.6	51.2	48.4	94.5	.615	31.49	29.76
Rhode Island.....	6	16	5.5	52.0	49.5	95.2	.608	31.62	30.06
Tennessee.....	3	8	5.0	49.8	41.8	83.9	.492	24.50	20.53
Texas.....	4	5	5.2	49.6	42.5	85.7	.664	32.93	28.25
Washington.....	4	6	5.2	47.3	42.2	89.2	.650	31.17	27.84
Wisconsin.....	11	30	5.5	52.3	48.3	92.4	.635	33.21	30.69
Total.....	292	625	5.5	50.8	47.9	94.3	.609	30.94	29.18
Sand blasters, male:									
California.....	5	11	5.6	45.7	46.4	101.5	.587	26.83	27.23
Connecticut.....	14	21	5.4	53.2	50.5	94.9	.553	29.42	27.93
Georgia.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois.....	9	12	5.3	52.3	46.6	89.1	.576	30.12	26.82
Indiana.....	11	27	4.6	50.9	40.0	78.6	.516	26.26	20.60
Iowa.....	5	12	4.8	53.5	42.1	78.7	.512	27.39	21.54
Kansas.....	2	2	6.0	54.0	62.8	116.3	.413	22.30	25.91
Maine.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maryland.....	5	7	5.3	52.7	46.4	88.0	.430	22.66	19.98
Massachusetts.....	12	17	5.6	49.9	47.0	94.2	.623	31.34	29.53
Michigan.....	21	52	5.2	52.2	47.1	90.2	.660	34.45	31.08
Minnesota.....	3	7	6.0	51.8	51.7	99.8	.497	23.74	25.63
Missouri.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	14	29	5.6	51.2	52.4	102.3	.558	28.57	29.22
New York.....	15	25	5.3	49.1	45.0	97.8	.679	33.34	32.57
Ohio.....	16	29	4.8	53.5	44.0	82.2	.548	29.32	24.15
Oregon.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	22	67	5.1	51.1	43.8	85.7	.601	30.71	26.32
Rhode Island.....	4	9	5.7	52.4	50.7	96.8	.475	24.89	24.06
Tennessee.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Washington.....	3	3	6.0	46.3	45.3	97.8	.618	28.61	28.00
Wisconsin.....	8	22	5.6	52.2	53.9	103.3	.720	37.58	38.85
Total.....	175	362	5.2	51.7	46.8	90.5	.591	30.55	27.63

<sup>1</sup> Included in total.

**TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued**

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-employees	Number of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Other foundry employees, male:									
Alabama.....	3	8	6.0	54.3	55.8	102.8	\$0.470	\$25.52	\$26.18
California.....	18	132	5.5	48.6	44.9	92.4	.657	31.93	29.48
Colorado.....	3	45	5.8	46.9	51.7	110.2	.571	26.78	29.49
Connecticut.....	16	144	5.5	52.6	50.0	95.1	.556	29.25	27.82
Georgia.....	6	44	5.0	55.4	44.9	81.0	.390	21.61	17.53
Illinois.....	23	325	5.3	48.6	47.4	97.5	.648	31.49	30.74
Indiana.....	15	229	5.4	50.4	51.5	102.2	.551	27.77	28.38
Iowa.....	11	75	5.9	53.9	54.9	101.9	.585	31.53	32.15
Kansas.....	4	15	5.5	56.0	52.6	93.9	.342	19.15	17.98
Kentucky.....	4	12	5.3	53.2	49.1	92.3	.419	22.29	20.57
Louisiana.....	4	14	5.7	53.9	49.8	92.4	.340	18.33	16.91
Maine.....	3	10	5.3	47.6	43.7	91.8	.572	27.23	24.95
Maryland.....	7	31	4.9	52.7	41.9	79.5	.439	23.14	18.38
Massachusetts.....	27	514	5.5	49.7	46.7	94.0	.591	29.37	27.61
Michigan.....	36	508	5.3	51.7	48.2	93.2	.639	33.04	30.77
Minnesota.....	5	40	5.6	52.4	48.6	92.7	.506	26.51	24.61
Missouri.....	9	38	5.7	50.3	49.2	97.8	.523	26.31	25.73
New Hampshire.....	3	14	5.6	50.6	50.7	100.2	.553	27.98	28.03
New Jersey.....	17	320	5.3	51.6	48.5	94.0	.580	29.93	28.16
New York.....	24	318	5.3	51.3	51.9	101.2	.621	31.86	32.24
Ohio.....	43	450	5.5	52.2	49.6	95.0	.565	29.49	28.01
Oregon.....	6	42	5.1	44.6	40.4	90.6	.607	27.07	24.49
Pennsylvania.....	38	594	5.2	51.4	45.9	89.3	.611	31.41	28.07
Rhode Island.....	7	43	5.9	51.6	54.5	105.6	.565	29.15	30.80
Tennessee.....	6	20	5.4	50.0	44.4	88.8	.451	22.55	20.01
Texas.....	9	30	5.6	51.2	48.9	95.5	.487	24.93	23.84
Washington.....	6	42	5.5	46.2	42.6	92.2	.581	26.84	24.76
Wisconsin.....	12	197	5.6	52.6	49.6	94.3	.493	25.93	24.46
Total.....	365	4,254	5.4	51.0	48.4	94.9	.587	29.94	28.40
Other foundry employees, female:									
Illinois.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	2	4	6.0	48.0	48.0	100.0	.335	16.08	16.08
Michigan.....	5	29	5.4	52.2	47.2	90.4	.453	23.65	21.35
New Jersey.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	2	9	5.1	49.2	43.8	89.0	.335	16.48	14.70
Ohio.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Rhode Island.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	15	115	5.0	50.6	42.8	84.6	.376	19.03	16.08

## MACHINE SHOPS

<b>Assemblers, male:</b>									
Alabama.....	2	22	5.6	54.9	52.3	95.3	\$0.561	\$30.80	\$29.35
California.....	14	146	5.8	45.9	46.9	102.2	.810	37.18	37.96
Connecticut.....	18	324	5.7	51.1	49.2	96.3	.684	34.95	33.66
Georgia.....	2	7	6.0	53.6	52.8	98.5	.606	32.48	32.00
Illinois.....	31	860	5.7	50.4	49.1	97.4	.679	34.22	33.34
Indiana.....	14	325	5.7	51.6	50.0	96.9	.536	27.66	26.78
Iowa.....	9	89	5.7	51.0	52.9	101.9	.513	26.62	27.12
Kansas.....	3	40	4.7	49.9	40.2	80.6	.431	21.51	17.32
Kentucky.....	6	76	5.5	48.0	43.8	91.3	.594	28.51	26.03
Louisiana.....	2	2	6.0	59.0	56.0	94.9	.412	24.31	23.08
Maine.....	3	22	5.2	47.8	42.7	89.3	.556	26.58	23.72
Maryland.....	5	41	5.6	48.0	45.5	94.8	.645	30.96	29.33
Massachusetts.....	9	241	5.6	48.4	47.1	97.3	.605	29.28	28.54
Michigan.....	24	504	5.7	51.0	49.1	96.3	.618	31.52	30.35
Minnesota.....	5	68	5.5	50.0	45.8	91.6	.617	30.85	28.23
Missouri.....	15	134	5.7	52.0	50.2	96.5	.564	29.33	28.32

<sup>1</sup> Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Number of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Assemblers, male—Continued</b>									
New Hampshire.....	4	16	6.0	50.0	49.9	99.8	\$0.577	\$28.85	\$28.83
New Jersey.....	26	480	5.7	49.1	49.4	100.6	.713	35.01	35.23
New York.....	22	976	5.4	48.3	47.2	97.7	.705	34.05	33.29
Ohio.....	72	1,718	5.6	49.7	47.1	94.8	.640	31.81	30.13
Oregon.....	5	30	5.5	45.2	43.6	96.5	.728	32.91	31.74
Pennsylvania.....	42	1,187	5.4	51.3	47.0	91.6	.665	34.11	31.25
Rhode Island.....	10	143	5.4	50.5	46.2	91.5	.600	30.30	27.76
Tennessee.....	2	30	5.5	48.0	43.7	91.0	.552	26.50	24.14
Texas.....	5	67	5.9	51.3	50.1	97.7	.535	27.45	26.83
Washington.....	4	34	5.9	47.6	48.2	101.3	.777	36.99	37.44
Wisconsin.....	14	437	5.6	52.1	48.7	93.5	.649	33.81	31.62
Total.....	368	8,019	5.6	50.1	47.9	95.6	.653	32.72	31.26
<b>Assemblers, female:</b>									
Illinois.....	2	8	5.9	50.9	49.5	97.2	.530	26.98	26.25
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	4	35	5.4	48.0	42.1	87.7	.478	22.94	20.14
Michigan.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	2	7	5.7	49.1	47.1	95.9	.430	21.11	20.24
Ohio.....	2	7	5.4	49.2	44.8	91.1	.511	25.14	22.87
Wisconsin.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	14	120	5.3	49.5	43.5	87.9	.423	20.94	18.39
<b>Blacksmiths, male:</b>									
Alabama.....	3	5	6.0	53.2	53.4	100.4	.723	38.46	38.61
California.....	17	32	5.9	46.5	47.7	102.6	.852	39.62	40.61
Connecticut.....	15	39	5.9	50.7	52.0	102.6	.741	37.57	38.51
Georgia.....	6	7	5.7	53.1	48.7	91.7	.635	33.72	30.94
Illinois.....	32	71	5.6	50.1	47.7	95.2	.764	38.28	36.44
Indiana.....	13	27	5.8	51.8	50.4	97.3	.704	36.47	35.44
Iowa.....	6	11	5.8	51.8	55.2	106.6	.644	33.36	35.67
Kansas.....	8	13	5.4	53.2	51.1	96.1	.720	38.30	36.77
Kentucky.....	5	6	5.3	49.3	42.4	86.0	.672	33.13	28.48
Louisiana.....	4	5	5.0	52.8	38.4	72.7	.758	40.02	29.06
Maine.....	4	8	5.4	48.5	45.6	94.0	.605	29.34	27.59
Maryland.....	5	13	5.1	48.8	42.6	87.3	.704	34.36	30.01
Massachusetts.....	30	65	5.6	49.4	46.7	94.5	.688	33.99	32.13
Michigan.....	25	43	5.7	51.0	49.6	97.3	.689	35.14	34.17
Minnesota.....	6	17	5.8	50.1	48.5	96.8	.633	31.71	30.66
Missouri.....	13	14	5.5	52.5	47.3	90.1	.658	34.55	31.11
New Hampshire.....	7	10	5.5	51.4	47.9	93.2	.696	35.77	33.30
New Jersey.....	24	45	5.8	49.7	49.7	100.0	.748	37.18	37.20
New York.....	22	53	5.5	49.1	47.3	96.3	.741	36.38	35.11
Ohio.....	71	128	5.5	49.9	46.4	93.0	.700	34.93	32.50
Oregon.....	6	7	5.6	45.7	43.5	95.2	.787	35.97	34.21
Pennsylvania.....	41	145	5.4	50.9	46.3	91.0	.737	37.51	34.14
Rhode Island.....	9	11	5.4	48.7	46.2	94.9	.724	35.26	33.46
Tennessee.....	8	10	6.0	49.4	48.4	98.0	.820	40.51	39.71
Texas.....	10	17	5.6	51.2	47.7	93.2	.742	37.99	35.38
Washington.....	5	7	5.4	47.3	43.0	90.9	.785	37.13	33.72
Wisconsin.....	11	36	5.8	52.4	51.1	97.5	.757	39.67	38.74
Total.....	406	845	5.6	50.2	47.7	95.0	.726	36.45	34.65

<sup>1</sup>Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-employees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Blacksmiths' helpers, male:									
Alabama	2	7	5.4	54.3	50.4	92.8	\$0.363	\$19.71	\$18.30
California	15	30	5.8	47.0	46.5	98.9	.618	29.05	28.73
Connecticut	12	30	5.9	50.7	53.6	105.7	.521	26.41	27.91
Georgia	4	5	5.8	52.5	50.7	96.6	.266	13.97	13.48
Illinois	20	40	5.5	49.3	46.1	93.5	.559	27.56	25.74
Indiana	8	24	5.7	51.7	49.9	96.5	.506	26.16	25.25
Iowa	5	9	5.9	51.8	54.8	105.8	.468	24.24	25.64
Kansas	6	12	5.4	53.1	49.0	92.3	.439	23.31	21.51
Kentucky	2	2	6.0	47.0	47.0	100.0	.480	22.56	22.55
Louisiana	4	7	5.0	50.3	41.3	82.1	.471	23.69	19.44
Maine	3	5	5.4	47.6	45.0	94.5	.457	21.75	20.55
Maryland	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts	21	42	5.7	49.4	48.0	97.2	.502	24.80	24.09
Michigan	13	26	5.9	51.4	51.3	99.8	.522	26.83	26.81
Minnesota	4	13	5.8	51.5	50.5	98.1	.471	24.26	23.75
Missouri	8	14	5.3	52.2	45.0	86.2	.530	27.67	23.82
New Hampshire	2	4	6.0	52.5	54.4	103.6	.532	27.93	28.92
New Jersey	18	36	5.8	49.9	50.8	101.8	.538	26.85	27.34
New York	17	49	5.4	48.5	47.2	97.3	.572	27.74	26.98
Ohio	49	103	5.5	50.8	47.3	93.1	.524	26.62	24.80
Oregon	6	8	5.8	46.0	45.1	98.0	.601	27.65	27.15
Pennsylvania	34	135	5.4	51.7	46.8	90.5	.546	28.23	25.55
Rhode Island	7	14	5.3	50.4	44.1	87.5	.516	26.01	22.78
Tennessee	8	16	5.9	49.5	48.4	97.8	.389	19.26	18.82
Texas	9	30	5.6	49.7	47.7	96.0	.436	21.67	20.79
Washington	4	12	5.5	49.9	44.2	88.6	.607	30.29	26.86
Wisconsin	9	45	5.8	52.6	50.8	96.6	.558	29.35	28.36
Total	291	722	5.6	50.2	48.1	95.8	.525	26.36	25.25
Boring-mill hands and operators, male:									
Alabama	2	14	5.8	54.6	54.0	98.9	.694	37.89	37.45
California	15	63	6.0	45.8	47.7	104.1	.846	38.75	40.33
Connecticut	16	109	5.6	50.8	52.5	103.3	.753	38.25	39.56
Georgia	4	7	5.9	53.9	54.8	101.7	.461	24.85	25.24
Illinois	30	253	5.5	50.0	47.8	95.6	.784	39.20	37.46
Indiana	9	30	5.6	51.9	50.2	96.7	.616	31.97	30.96
Iowa	3	19	5.9	53.0	56.8	107.2	.566	30.00	32.17
Kansas	3	6	5.8	51.0	54.5	106.9	.412	21.01	22.46
Kentucky	4	8	5.3	45.8	39.3	85.8	.768	35.17	30.15
Louisiana	3	6	6.0	51.3	50.5	98.4	.726	37.24	36.64
Maine	3	10	5.4	46.4	42.2	90.9	.629	29.19	26.55
Maryland	3	4	5.0	48.5	43.0	88.7	.851	41.27	36.61
Massachusetts	27	110	5.7	48.4	48.5	100.2	.707	34.22	34.27
Michigan	15	84	5.6	51.9	50.4	97.1	.647	33.58	32.60
Minnesota	3	15	5.5	49.5	47.7	96.4	.702	34.75	33.49
Missouri	11	52	5.8	50.5	48.4	95.8	.706	35.65	34.20
New Hampshire	4	6	5.5	50.3	46.4	92.2	.660	33.20	30.62
New Jersey	25	119	5.6	49.4	47.7	96.6	.762	37.64	36.36
New York	21	208	5.2	49.2	46.0	93.5	.741	36.46	34.03
Ohio	74	514	5.5	51.4	49.5	96.3	.725	37.27	35.89
Oregon	4	12	5.7	44.3	43.3	97.7	.792	35.09	34.33
Pennsylvania	42	334	5.6	51.8	50.0	96.5	.706	36.57	35.26
Rhode Island	9	33	5.8	50.7	50.4	99.4	.634	32.14	31.96
Tennessee	2	8	5.1	48.5	46.8	96.5	.635	30.80	29.69
Texas	5	6	5.7	51.0	47.9	93.9	.561	28.61	26.85
Washington	3	15	5.7	47.8	47.2	98.7	.793	37.91	37.44
Wisconsin	14	163	5.5	53.2	51.4	96.6	.744	39.58	38.26
Total	354	2,208	5.6	50.7	49.1	96.8	.727	36.86	35.71

<sup>1</sup> Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Number of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Buffers and polishers, male:									
Alabama.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
California.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Connecticut.....	5	6	5.7	51.3	46.1	89.9	\$0.611	\$31.34	\$28.13
Illinois.....	6	31	5.5	47.9	44.5	92.9	.760	36.40	33.83
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Iowa.....	3	4	5.5	50.8	46.1	90.7	.491	24.94	22.64
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine.....	2	17	5.6	47.2	45.1	95.6	.607	28.65	27.34
Maryland.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	14	92	5.7	48.5	45.4	93.6	.646	31.33	29.36
Michigan.....	12	118	5.2	50.0	45.0	90.0	.849	42.45	38.17
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	4	17	5.8	50.0	49.5	99.0	.772	38.60	38.17
New York.....	11	69	5.6	48.1	47.0	97.7	.703	33.81	33.06
Ohio.....	25	142	5.5	49.8	43.8	88.0	.652	32.47	28.56
Pennsylvania.....	11	26	5.6	51.1	50.1	98.0	.634	32.40	31.76
Rhode Island.....	5	27	5.6	50.4	48.3	95.8	.588	29.64	28.39
Wisconsin.....	5	12	5.8	52.6	48.9	93.0	.656	34.51	32.05
Total.....	109	580	5.5	49.4	45.7	92.5	.699	34.53	31.96
Buffers and polishers, female:									
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	3	6	5.5	49.0	43.0	87.8	.450	22.05	19.34
Crane operators, male:									
Alabama.....	3	8	5.6	54.1	53.8	99.4	.551	29.81	29.64
California.....	10	20	6.0	47.8	50.4	105.4	.697	33.32	35.14
Connecticut.....	8	50	5.8	50.2	53.3	106.2	.498	25.00	26.56
Georgia.....	2	2	6.0	54.0	50.4	93.3	.326	17.60	16.45
Illinois.....	19	76	5.6	50.9	50.6	99.4	.543	27.64	27.49
Indiana.....	6	17	5.6	53.4	54.7	102.4	.563	30.06	30.79
Iowa.....	3	4	6.0	50.8	56.2	110.6	.445	22.61	24.99
Kentucky.....	2	2	5.5	47.5	43.0	90.5	.418	19.86	17.97
Louisiana.....	2	2	5.5	51.0	42.8	83.9	.488	24.89	20.85
Maine.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maryland.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	9	18	6.0	51.8	55.0	106.2	.529	27.40	29.09
Michigan.....	7	20	6.1	49.8	52.0	104.4	.504	25.10	26.23
Minnesota.....	4	9	5.3	51.1	47.3	92.6	.493	25.19	23.33
Missouri.....	7	20	5.7	49.8	45.7	91.8	.587	29.23	26.80
New Jersey.....	14	42	5.6	50.5	53.2	105.3	.563	28.43	29.96
New York.....	17	99	5.6	49.3	50.6	102.6	.544	26.82	27.52
Ohio.....	47	201	5.7	51.5	51.3	99.6	.544	28.02	27.89
Oregon.....	3	7	5.1	44.0	38.8	88.2	.630	29.92	26.40
Pennsylvania.....	31	152	5.6	53.0	52.5	99.1	.517	27.40	27.14
Rhode Island.....	4	7	5.6	50.4	55.7	110.5	.511	25.75	28.43
Tennessee.....	2	4	6.0	49.0	49.0	100.0	.457	22.39	22.40
Texas.....	2	2	6.5	48.0	63.7	132.7	.705	33.84	44.90
Washington.....	3	6	6.0	47.9	49.3	102.9	.674	32.28	33.23
Wisconsin.....	11	93	5.4	52.9	49.5	93.6	.541	28.62	26.78
Total.....	218	865	5.6	51.2	51.3	100.2	.540	27.65	27.67
Crane operators, female:									
Connecticut.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	2	4	5.5	51.3	48.7	94.9	.431	22.11	21.01

<sup>1</sup>Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Drill-press hands and operators, male:</b>									
Alabama.....	2	26	5.5	54.9	50.8	92.5	\$0.406	\$22.29	\$20.63
California.....	18	115	5.9	45.5	46.2	101.5	.670	30.49	30.94
Connecticut.....	17	155	5.7	51.2	50.0	97.7	.607	31.08	30.34
Georgia.....	3	12	5.2	52.3	46.9	89.7	.368	19.25	17.27
Illinois.....	34	733	5.6	48.7	46.5	95.5	.687	33.46	31.92
Indiana.....	14	168	5.5	51.0	49.2	96.5	.541	27.59	26.65
Iowa.....	7	78	5.8	53.3	55.3	103.8	.487	25.96	26.92
Kansas.....	6	15	5.9	51.7	52.7	101.9	.436	22.54	22.97
Kentucky.....	7	21	5.2	46.3	40.3	87.0	.493	22.83	19.85
Louisiana.....	2	5	6.2	59.6	56.7	95.1	.352	20.98	19.95
Maine.....	2	22	5.4	48.1	44.2	91.9	.550	26.46	24.32
Maryland.....	5	51	5.6	48.6	45.7	94.0	.550	26.73	25.16
Massachusetts.....	37	349	5.7	49.3	47.9	97.2	.626	30.86	30.03
Michigan.....	29	327	5.3	51.2	47.3	92.4	.577	29.54	27.29
Minnesota.....	5	35	5.6	50.2	46.8	93.2	.694	34.84	32.43
Missouri.....	17	89	5.5	51.6	46.2	89.5	.516	26.57	23.81
New Hampshire.....	7	22	5.8	48.9	50.5	103.3	.647	31.64	32.68
New Jersey.....	28	205	5.7	49.6	48.6	98.0	.640	31.74	31.09
New York.....	23	413	5.4	48.7	46.8	96.1	.638	31.07	29.85
Ohio.....	79	755	5.5	50.5	47.2	93.5	.587	29.64	27.71
Oregon.....	6	18	5.4	45.3	42.1	92.9	.634	28.72	26.73
Pennsylvania.....	43	682	5.3	51.2	47.0	91.8	.578	29.59	27.13
Rhode Island.....	12	109	5.1	50.4	44.9	89.1	.573	28.88	25.73
Tennessee.....	4	26	5.5	48.5	45.0	92.8	.468	22.70	21.05
Texas.....	6	29	5.8	48.6	46.6	95.9	.504	24.49	23.49
Washington.....	5	24	5.5	47.3	43.4	91.8	.701	33.16	30.46
Wisconsin.....	15	275	5.4	53.1	50.1	94.4	.596	31.65	29.86
Total.....	433	4,759	5.5	50.1	47.5	94.8	.605	30.31	28.71
<b>Drill-press hands and operators, female:</b>									
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	3	7	5.4	48.0	43.4	90.4	.435	20.88	18.88
Michigan.....	8	37	5.2	50.1	43.5	86.8	.660	28.06	24.35
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	2	13	5.8	48.6	47.1	96.9	.437	21.24	20.56
Ohio.....	2	4	5.0	49.2	42.4	86.2	.421	20.71	17.87
Pennsylvania.....	2	14	5.9	48.0	46.6	97.1	.467	22.42	21.75
Rhode Island.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	22	121	5.3	49.4	43.8	88.7	.448	22.13	19.66
<b>Fitters and bench hands, male:</b>									
Alabama.....	2	12	5.8	54.6	53.8	98.5	.593	32.38	31.92
California.....	17	197	6.0	45.3	48.2	106.4	.796	36.06	33.38
Connecticut.....	11	277	5.8	50.9	50.1	98.4	.651	33.14	32.61
Georgia.....	2	19	5.2	59.7	49.1	82.2	.267	15.94	13.09
Illinois.....	24	562	5.7	49.3	47.5	96.3	.721	35.55	34.26
Indiana.....	10	131	5.7	48.8	47.5	97.3	.638	31.13	30.32
Iowa.....	4	38	5.7	52.9	52.7	99.6	.422	22.32	22.21
Kansas.....	4	12	6.0	54.2	55.2	101.8	.496	26.88	27.40
Kentucky.....	5	29	5.7	47.5	44.3	93.3	.580	27.55	25.69
Maine.....	2	63	5.7	44.8	42.5	94.9	.602	22.49	21.36
Maryland.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	35	1,100	5.7	47.4	48.2	101.7	.660	31.28	31.80
Michigan.....	25	489	5.5	50.7	48.3	95.3	.651	33.01	31.44
Minnesota.....	5	12	5.8	49.5	49.1	99.2	.668	33.07	32.83
Missouri.....	10	64	5.7	53.3	50.3	94.4	.545	29.05	27.41
New Hampshire.....	5	72	5.7	48.2	51.2	106.2	.723	34.85	37.01
New Jersey.....	25	378	5.6	49.3	47.2	95.7	.641	31.60	30.21
New York.....	20	922	5.7	48.4	48.4	100.0	.716	34.65	34.64
Ohio.....	62	856	5.6	50.0	47.1	94.2	.650	32.50	30.63

<sup>1</sup>Included in total.

# 44 WAGES AND HOURS—FOUNDRIES AND MACHINE SHOPS

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Fitters and bench hands, male—Continued.</b>									
Oregon	3	8	4.8	44.5	35.4	79.6	\$0.708	\$31.51	\$25.08
Pennsylvania	33	952	5.6	51.7	48.6	94.0	.633	32.73	30.75
Rhode Island	6	114	5.5	50.4	46.7	92.7	.595	29.99	27.78
Tennessee	3	20	5.5	49.0	44.7	91.2	.511	25.04	22.81
Texas	2	6	5.5	53.0	49.3	93.0	.522	27.67	25.75
Washington	3	31	5.7	47.5	45.1	94.9	.775	36.81	35.01
Wisconsin	13	293	5.7	52.6	49.7	94.5	.635	33.40	31.58
Total	332	6,661	5.7	49.5	48.1	97.2	.662	32.77	31.85
<b>Fitters and bench hands, female:</b>									
Illinois	2	8	5.6	50.9	48.0	94.3	.488	24.84	23.41
Massachusetts	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Michigan	8	99	5.5	50.0	46.0	92.0	.487	24.35	22.41
New Jersey	2	11	6.0	50.0	49.4	98.8	.393	19.65	19.42
New York	2	157	5.8	48.0	46.5	96.9	.367	17.62	17.05
Pennsylvania	3	33	5.6	48.1	45.6	94.8	.400	19.24	18.28
Rhode Island	2	30	5.9	51.4	50.5	98.2	.391	20.10	19.74
Total	20	341	5.7	49.0	46.8	95.5	.411	20.14	19.21
<b>Grinding-machine hands and operators, male:</b>									
Alabama	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
California	10	47	5.4	50.8	44.8	88.2	.779	39.57	34.87
Connecticut	15	122	5.7	51.4	49.3	95.9	.628	32.28	30.97
Georgia	2	5	6.0	51.0	50.6	99.2	.434	22.13	21.93
Illinois	24	412	5.6	49.5	48.7	98.4	.735	36.38	35.77
Indiana	11	93	5.6	50.4	51.4	102.0	.632	31.88	32.51
Iowa	2	3	5.6	53.2	52.5	98.7	.543	28.89	28.50
Kansas	2	3	6.0	49.8	55.1	110.6	.656	32.67	36.14
Kentucky	3	4	5.0	47.0	38.0	80.9	.509	23.92	19.34
Louisiana	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine	2	8	5.3	50.0	46.1	92.2	.608	30.40	28.07
Maryland	2	17	5.1	52.5	47.2	89.9	.735	38.59	34.66
Massachusetts	34	185	5.6	49.7	48.9	98.4	.651	32.35	31.82
Michigan	21	173	5.3	50.8	46.3	91.1	.658	33.43	30.50
Minnesota	2	14	5.8	49.9	47.1	94.4	.701	34.98	33.03
Missouri	10	27	5.4	53.1	46.0	86.6	.570	30.27	26.21
New Hampshire	3	13	5.8	48.3	47.8	99.0	.649	31.35	31.06
New Jersey	15	84	5.3	49.0	45.1	92.0	.662	32.44	29.82
New York	15	185	5.6	48.3	47.6	98.6	.711	34.34	33.88
Ohio	61	390	5.5	50.1	47.0	93.8	.629	31.51	29.54
Oregon	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania	31	217	5.5	50.0	46.6	93.2	.691	34.55	32.22
Rhode Island	9	129	5.7	50.3	47.7	94.8	.628	31.59	29.94
Tennessee	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Texas	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Washington	2	8	6.0	47.4	47.8	100.8	.786	37.26	37.51
Wisconsin	14	98	5.6	52.5	51.1	97.3	.644	33.81	32.90
Total	298	2,285	5.6	50.1	47.9	95.6	.668	33.47	31.99
<b>Grinding-machine hands and operators, female:</b>									
Michigan	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total	5	15	5.3	48.6	43.1	88.7	.444	21.58	19.12

<sup>1</sup> Included in total.



TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Laborers, male:</b>									
Alabama.....	6	53	5.2	54.5	47.4	87.0	\$0.304	\$16.57	\$14.39
California.....	21	194	5.5	45.9	44.7	97.4	.535	24.56	23.90
Connecticut.....	16	202	5.7	50.9	50.6	99.4	.471	23.97	23.84
Georgia.....	8	71	5.5	53.5	50.1	93.6	.226	12.09	11.33
Illinois.....	32	1,009	5.7	49.9	48.6	97.4	.498	24.85	24.20
Indiana.....	15	319	5.6	51.2	51.7	101.0	.437	22.37	22.58
Iowa.....	9	75	5.8	53.5	55.0	102.8	.395	21.13	21.72
Kansas.....	5	26	5.3	53.6	48.6	90.7	.362	19.40	17.60
Kentucky.....	5	25	5.5	46.1	44.3	96.1	.406	18.72	17.98
Louisiana.....	4	40	5.2	54.9	46.7	85.1	.329	18.06	15.38
Maine.....	4	33	5.3	48.4	43.9	90.7	.419	20.28	18.37
Maryland.....	6	58	5.5	49.6	48.0	96.8	.430	21.33	20.63
Massachusetts.....	36	841	5.7	49.7	48.6	97.8	.459	22.81	22.31
Michigan.....	32	672	5.5	51.3	48.6	94.7	.490	25.14	23.83
Minnesota.....	5	103	5.1	49.8	43.3	86.9	.447	22.26	19.36
Missouri.....	16	158	5.5	52.2	47.3	90.6	.409	21.35	19.35
New Hampshire.....	8	43	5.9	50.3	50.5	100.4	.469	28.69	23.70
New Jersey.....	29	373	5.6	49.8	50.4	101.2	.471	23.46	23.75
New York.....	23	871	5.6	48.6	48.2	99.2	.460	22.36	22.16
Ohio.....	80	1,225	5.6	50.6	48.7	96.2	.453	22.92	22.04
Oregon.....	3	21	5.6	46.2	42.7	92.4	.490	22.64	20.90
Pennsylvania.....	44	1,182	5.5	51.6	48.5	94.0	.444	22.91	21.52
Rhode Island.....	12	121	5.5	51.0	48.7	95.5	.443	22.59	21.57
Tennessee.....	8	81	5.6	49.3	46.2	93.7	.316	15.58	14.60
Texas.....	12	157	5.6	50.4	47.7	94.6	.349	17.59	16.67
Washington.....	6	38	5.1	47.5	41.0	86.3	.485	23.04	19.91
Wisconsin.....	14	351	5.5	52.2	49.6	94.8	.471	24.63	23.35
Total.....	459	8,342	5.6	50.4	48.6	96.4	.456	22.98	22.16
<b>Lathe hands and operators, engine, male:</b>									
Alabama.....	2	22	5.5	54.6	49.6	90.8	.668	36.47	33.12
California.....	16	219	5.8	45.5	45.4	99.8	.848	38.58	38.54
Connecticut.....	19	232	5.7	51.1	49.8	97.5	.678	34.65	33.73
Georgia.....	4	17	5.9	53.7	50.5	103.4	.547	29.37	30.35
Illinois.....	33	865	5.7	49.9	48.1	96.4	.767	38.27	36.89
Indiana.....	10	183	5.6	49.7	48.1	96.8	.643	31.96	30.93
Iowa.....	7	48	5.8	52.4	53.9	102.9	.885	30.65	31.54
Kansas.....	7	40	5.7	50.3	50.3	100.0	.659	33.15	33.17
Kentucky.....	7	46	5.5	47.7	43.4	91.0	.612	29.19	26.55
Louisiana.....	3	19	5.8	56.7	52.2	92.1	.630	35.72	32.83
Maine.....	3	56	5.4	47.4	44.1	93.0	.604	28.63	26.59
Maryland.....	4	31	5.3	48.3	43.1	89.2	.566	28.30	25.24
Massachusetts.....	36	648	5.7	49.2	47.1	95.7	.638	31.39	30.05
Michigan.....	21	278	5.4	51.5	47.8	92.8	.643	33.11	30.75
Minnesota.....	5	53	5.5	51.4	47.7	92.8	.657	33.26	30.86
Missouri.....	16	159	5.7	51.0	48.4	94.9	.641	32.43	31.61
New Hampshire.....	6	54	5.7	50.6	49.3	97.4	.723	35.79	33.85
New Jersey.....	26	252	5.6	49.5	46.8	94.5	.724	35.62	35.27
New York.....	22	438	5.5	49.2	48.7	99.0	.694	35.19	33.27
Ohio.....	80	1,014	5.5	50.7	48.0	94.7	.694	35.05	33.33
Oregon.....	5	26	5.6	45.4	43.2	95.2	.772	35.05	33.33
Pennsylvania.....	44	727	5.5	51.4	48.2	93.8	.687	35.31	33.13
Rhode Island.....	11	125	5.4	50.4	46.7	92.7	.607	30.59	28.33
Tennessee.....	3	40	5.9	48.8	47.6	97.5	.608	29.67	28.94
Texas.....	6	66	5.8	49.3	47.3	95.9	.679	33.47	32.08
Washington.....	4	40	5.4	47.1	44.3	94.1	.779	36.69	34.46
Wisconsin.....	14	266	5.5	53.5	51.1	95.5	.695	37.18	35.50
Total.....	414	5,964	5.6	50.2	48.0	95.6	.695	34.89	33.33
<b>Lathe hands and operators, engine, female:</b>									
Massachusetts.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	2	7	6.0	48.4	48.4	100.0	.385	18.63	18.64

<sup>1</sup> Included in total.

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TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Lathe hands and operators, turn- ret, male:</b>									
Alabama.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
California.....	15	96	5.7	45.8	45.0	98.3	\$0.809	\$37.05	\$36.39
Connecticut.....	16	91	5.9	51.4	49.4	96.1	.705	36.24	34.80
Georgia.....	3	6	5.5	56.7	50.3	88.7	.448	25.40	22.54
Illinois.....	23	432	5.7	49.3	47.6	96.6	.720	35.50	34.28
Indiana.....	6	80	5.3	51.9	45.9	88.4	.608	31.56	27.95
Iowa.....	5	38	5.8	53.7	55.8	103.9	.542	29.11	30.28
Kansas.....	2	5	6.0	55.2	58.5	106.0	.631	34.83	36.92
Kentucky.....	6	42	4.5	47.2	36.0	76.3	.486	22.94	17.50
Louisiana.....	2	2	6.0	59.0	56.0	94.9	.528	31.15	29.55
Maine.....	2	16	5.5	48.5	46.0	94.8	.563	27.31	25.90
Maryland.....	3	11	5.0	48.5	40.7	83.9	.717	34.77	29.17
Massachusetts.....	30	254	5.8	49.1	47.5	96.7	.670	32.90	31.85
Michigan.....	25	383	5.4	50.6	46.7	92.3	.674	34.10	31.45
Minnesota.....	3	9	5.4	49.5	46.8	94.5	.601	29.75	28.12
Missouri.....	11	40	5.4	51.6	46.6	90.3	.562	29.00	26.17
New Hampshire.....	7	23	5.9	49.1	52.0	105.9	.641	31.47	33.35
New Jersey.....	25	134	5.5	49.5	46.4	93.7	.713	35.29	33.07
New York.....	20	230	5.4	49.2	46.4	94.3	.681	33.51	31.60
Ohio.....	60	448	5.5	50.4	46.8	92.9	.652	32.86	30.50
Oregon.....	3	9	5.6	45.8	42.3	92.4	.728	33.34	30.78
Pennsylvania.....	40	569	5.3	50.1	45.3	90.4	.672	33.67	30.49
Rhode Island.....	11	33	5.4	50.7	46.7	92.1	.599	30.37	27.96
Tennessee.....	3	10	6.0	48.4	48.0	99.2	.562	27.20	26.95
Texas.....	6	41	5.8	48.6	46.6	95.9	.648	31.49	30.17
Washington.....	4	21	5.4	47.3	43.4	91.8	.796	37.65	34.54
Wisconsin.....	11	137	5.4	53.0	48.5	91.5	.670	35.83	32.76
Total.....	343	3,167	5.5	50.0	46.7	93.4	.675	33.75	31.51
<b>Lathe hands and operators, turn- ret, female:</b>									
Massachusetts.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Michigan.....	6	36	4.5	50.0	39.7	79.4	.553	27.65	21.94
New Jersey.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	8	46	4.7	50.0	40.5	81.0	.549	27.45	22.21
<b>Machinists, male:</b>									
Alabama.....	5	45	5.8	52.3	51.8	99.0	.708	37.03	36.66
California.....	24	239	5.8	45.2	44.2	97.8	.844	38.15	37.26
Connecticut.....	13	198	5.9	50.7	53.8	106.1	.739	37.47	39.75
Georgia.....	8	67	5.5	54.7	46.9	85.7	.677	37.03	31.73
Illinois.....	28	356	5.7	48.5	48.3	99.6	.794	38.51	38.38
Indiana.....	12	147	5.4	51.7	47.6	92.1	.650	33.61	30.95
Iowa.....	8	40	5.9	51.0	51.8	101.6	.618	31.52	32.04
Kansas.....	5	28	5.4	52.7	52.1	98.9	.688	36.26	35.83
Kentucky.....	5	24	5.5	47.7	44.1	92.5	.675	32.20	29.73
Louisiana.....	5	53	5.0	45.1	39.8	88.2	.866	39.06	34.50
Maine.....	4	41	5.7	49.7	48.6	97.8	.620	30.81	30.14
Maryland.....	7	186	5.8	47.9	47.1	98.3	.686	30.25	32.27
Massachusetts.....	27	410	5.4	47.5	44.5	93.7	.702	33.35	31.25
Michigan.....	25	234	5.6	52.0	49.8	95.8	.736	38.27	36.63
Minnesota.....	6	27	5.8	49.7	47.7	96.0	.690	32.80	31.47
Missouri.....	13	123	5.7	48.6	46.7	96.1	.745	36.21	34.78
New Hampshire.....	8	117	5.9	51.5	52.6	102.1	.679	34.97	35.73
New Jersey.....	31	185	5.1	49.7	43.3	87.1	.766	38.07	33.18
New York.....	19	150	5.7	49.6	49.5	99.8	.743	36.85	36.78
Ohio.....	56	278	5.6	50.6	47.6	94.1	.678	34.31	32.30
Oregon.....	6	27	5.8	47.1	45.2	96.0	.833	39.23	37.64
Pennsylvania.....	31	296	5.6	50.7	49.5	97.6	.734	37.21	36.35
Rhode Island.....	13	168	5.7	50.2	47.5	94.6	.593	29.77	28.15
Tennessee.....	8	79	5.6	49.8	46.1	92.6	.762	37.95	35.10
Texas.....	9	73	4.8	48.9	42.3	86.5	.830	40.59	35.17
Washington.....	7	61	5.5	45.6	41.8	91.7	.788	35.93	32.97
Wisconsin.....	12	137	5.8	51.8	53.9	104.1	.733	37.97	39.49
Total.....	395	3,794	5.6	49.5	47.7	96.4	.728	36.04	34.68

\*Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Machinists' and tool makers' helpers, male:</b>									
Alabama.....	3	14	5.5	53.2	49.8	93.6	\$0.332	\$17.66	\$16.51
California.....	20	94	5.9	45.7	46.3	101.3	.608	27.79	28.15
Connecticut.....	9	162	6.0	51.0	57.7	113.1	.499	25.45	28.77
Georgia.....	4	7	5.1	52.7	45.3	86.0	.292	15.39	13.22
Illinois.....	17	146	5.5	48.0	45.9	95.6	.582	27.94	26.71
Indiana.....	6	22	5.3	51.5	46.1	89.5	.491	25.29	22.60
Iowa.....	5	11	5.8	52.1	51.7	99.2	.400	20.84	20.68
Kansas.....	8	56	5.8	51.9	52.3	100.8	.433	22.47	22.67
Kentucky.....	2	4	4.5	47.0	34.8	74.0	.468	22.00	16.28
Louisiana.....	2	24	4.1	44.0	33.3	75.7	.523	23.01	17.45
Maine.....	3	9	5.9	48.0	47.8	99.6	.449	21.65	21.47
Maryland.....	6	53	5.8	48.1	46.1	95.8	.465	22.37	21.46
Massachusetts.....	12	77	5.8	49.2	48.0	97.6	.518	25.49	24.86
Michigan.....	11	57	5.6	49.4	46.4	93.9	.516	25.49	23.94
Minnesota.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Missouri.....	11	28	5.5	51.1	48.1	94.1	.446	22.79	21.46
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	23	73	5.5	49.5	47.7	96.4	.563	27.87	26.82
New York.....	21	96	5.6	50.2	48.6	96.8	.527	26.46	25.60
Ohio.....	34	209	5.7	51.2	49.2	96.1	.501	25.65	24.68
Oregon.....	5	14	5.6	46.6	43.4	93.1	.611	28.47	26.55
Pennsylvania.....	26	159	5.6	51.4	49.1	95.5	.512	26.32	25.15
Rhode Island.....	9	71	5.7	50.1	48.6	97.0	.449	22.49	21.82
Tennessee.....	4	15	5.5	49.5	46.3	93.5	.334	16.53	15.47
Texas.....	8	41	4.4	48.8	39.0	79.9	.521	25.42	20.28
Washington.....	5	18	5.5	45.6	43.6	95.6	.631	28.77	27.52
Wisconsin.....	13	205	5.6	52.6	51.8	98.5	.498	26.19	25.81
<b>Total.....</b>	<b>269</b>	<b>1,671</b>	<b>5.6</b>	<b>50.1</b>	<b>48.9</b>	<b>97.6</b>	<b>.510</b>	<b>25.55</b>	<b>24.96</b>
<b>Milling-machine hands and operators, male:</b>									
Alabama.....	2	6	5.8	54.8	52.7	96.2	.667	36.55	35.13
California.....	13	57	5.9	45.4	46.4	102.2	.836	37.95	38.75
Connecticut.....	16	147	5.8	51.5	49.7	96.5	.638	32.86	31.73
Georgia.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois.....	25	375	5.7	49.3	48.5	98.4	.761	37.52	36.87
Indiana.....	13	71	5.7	51.3	51.0	99.4	.611	31.34	31.20
Iowa.....	3	23	5.7	53.7	57.0	106.1	.519	27.87	29.61
Kansas.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	5	12	5.7	47.5	44.5	93.7	.589	27.98	26.23
Louisiana.....	2	2	6.0	59.0	49.2	83.4	.622	36.70	30.55
Maine.....	3	18	5.6	48.7	46.5	95.5	.575	28.00	26.77
Maryland.....	3	13	4.9	48.2	42.7	88.6	.707	34.08	30.21
Massachusetts.....	33	343	4.9	47.9	45.5	95.0	.676	32.38	30.79
Michigan.....	22	124	5.7	50.9	50.1	98.4	.631	32.12	31.50
Minnesota.....	3	13	5.4	50.1	45.7	91.2	.707	35.42	32.30
Missouri.....	10	22	5.9	52.3	51.1	97.7	.603	31.54	30.84
New Hampshire.....	7	36	5.6	48.7	48.6	99.8	.681	33.16	33.10
New Jersey.....	21	78	5.8	49.2	48.8	99.2	.730	35.92	35.60
New York.....	19	401	5.5	48.2	47.2	97.9	.735	35.43	34.68
Ohio.....	70	536	5.6	50.0	47.9	95.8	.652	32.60	31.26
Oregon.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	39	360	5.4	50.5	46.4	91.9	.680	34.34	31.55
Rhode Island.....	9	91	5.4	50.5	46.5	92.1	.602	30.40	28.00
Tennessee.....	2	8	5.6	49.3	48.9	99.2	.580	28.59	28.59
Texas.....	2	4	6.0	52.0	52.0	100.0	.506	26.31	26.29
Washington.....	3	10	6.0	47.3	46.5	98.3	.802	37.93	37.29
Wisconsin.....	15	117	5.5	53.1	51.9	97.7	.668	35.47	34.70
<b>Total.....</b>	<b>343</b>	<b>2,872</b>	<b>5.6</b>	<b>49.7</b>	<b>47.8</b>	<b>96.2</b>	<b>.685</b>	<b>34.04</b>	<b>32.76</b>

<sup>1</sup> Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Average earnings—		
	Estab-lish-ments	Em-ployees	Number of days worked in one week	Full-time hours per week	Hours actually worked in one week	Per cent of full-time hours actually worked	Per hour	Full-time, per week
Milling-machine hands and operators, female:								
Michigan.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Rhode Island.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	3	17	5.8	48.8	46.8	95.9	\$0.489	\$23.86
Packers and craters, male:								
Alabama.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
California.....	10	26	5.8	45.3	45.8	101.1	.625	28.31
Connecticut.....	14	43	5.7	50.2	49.9	99.4	.523	26.25
Georgia.....	2	14	5.6	57.9	54.0	93.3	.237	13.72
Illinois.....	21	265	5.6	49.3	48.8	99.0	.587	28.94
Indiana.....	7	153	5.8	50.5	54.7	108.3	.500	25.70
Iowa.....	4	13	5.8	52.3	53.7	102.7	.492	25.73
Kansas.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Louisiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine.....	3	12	5.8	47.0	46.1	98.1	.522	24.53
Maryland.....	3	12	5.5	48.2	46.2	95.9	.476	22.94
Massachusetts.....	31	155	5.8	49.7	48.6	97.8	.547	27.19
Michigan.....	27	125	5.8	51.0	49.8	97.6	.531	27.08
Minnesota.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Missouri.....	8	33	5.9	51.1	50.9	99.6	.498	25.45
New Hampshire.....	4	12	6.0	49.0	49.7	101.4	.543	26.61
New Jersey.....	17	76	5.8	50.1	51.7	103.2	.564	28.26
New York.....	20	231	5.6	49.1	47.5	96.7	.527	25.88
Ohio.....	51	264	5.6	49.9	47.4	95.0	.543	27.10
Oregon.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	34	192	5.6	51.0	47.9	93.9	.534	27.23
Rhode Island.....	8	40	5.8	51.0	50.0	98.0	.521	26.57
Tennessee.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Texas.....	3	15	5.6	51.0	50.7	99.4	.397	20.25
Washington.....	3	7	5.4	47.9	44.6	93.1	.606	29.03
Wisconsin.....	11	91	5.5	52.4	48.0	91.6	.512	26.83
Total.....	288	1,793	5.7	50.1	49.1	98.0	.537	26.90
Packers and craters, female:								
Massachusetts.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Michigan.....	3	22	5.8	50.1	47.9	95.6	.445	22.29
New York.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio.....	2	18	5.2	49.5	40.5	81.8	.329	16.29
Total.....	7	44	5.6	49.5	44.6	90.1	.389	19.26
Pattern makers, male:								
California.....	11	44	5.8	45.1	43.7	96.9	.991	44.69
Connecticut.....	12	96	5.8	50.2	49.8	99.2	.818	41.06
Georgia.....	3	9	5.8	53.5	52.6	98.3	.771	41.25
Illinois.....	25	149	5.8	49.8	48.2	96.8	.906	45.12
Indiana.....	7	17	5.8	49.9	48.1	96.4	.735	36.68
Kentucky.....	3	4	6.0	48.5	48.1	99.2	.701	34.00
Louisiana.....	3	5	6.0	49.6	49.6	100.0	.892	44.24
Maine.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maryland.....	3	6	5.8	49.2	48.1	97.8	.798	39.26
Massachusetts.....	16	57	5.7	49.8	48.0	96.4	.776	38.64
Michigan.....	7	11	5.8	50.5	49.8	98.6	.839	42.37
Missouri.....	7	15	5.3	52.7	47.5	90.1	.816	43.00
New Hampshire.....	5	7	6.0	50.9	50.3	98.8	.727	37.00
New Jersey.....	17	77	5.6	48.4	47.8	98.8	.930	45.01
New York.....	11	140	5.7	44.7	51.5	115.2	.920	41.12
Ohio.....	43	191	5.7	50.5	48.4	95.8	.830	41.92
Oregon.....	3	7	6.0	45.1	45.8	101.6	.967	43.61
Pennsylvania.....	29	204	5.7	51.7	49.8	96.3	.791	40.89
Rhode Island.....	10	57	5.9	50.3	50.8	101.0	.766	38.53
Tennessee.....	3	7	6.0	48.3	49.1	101.7	.755	36.47
Texas.....	4	11	5.8	49.6	49.9	100.6	.846	41.96
Washington.....	4	17	5.8	47.8	46.3	96.9	.954	45.60
Wisconsin.....	8	95	5.7	52.4	50.4	96.2	.754	39.51
Total.....	235	1,228	5.7	49.6	49.1	99.0	.841	41.71

1 Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Planer hands and operators, male:									
Alabama	2	6	5.3	54.3	50.3	92.6	\$0.747	\$40.56	\$37.62
California	14	41	5.7	46.0	44.7	97.2	.819	37.67	36.60
Connecticut	17	148	5.8	51.0	53.3	104.5	.723	36.87	38.57
Georgia	2	10	4.1	55.5	36.6	65.9	.453	25.14	16.59
Illinois	23	135	5.6	49.1	46.9	95.5	.862	42.32	40.44
Indiana	9	34	5.5	49.8	46.7	93.8	.658	32.77	30.69
Iowa	4	6	5.8	51.3	56.8	110.7	.654	33.55	37.14
Kansas	6	6	5.8	52.6	51.9	98.7	.550	28.93	28.53
Kentucky	4	13	5.5	46.9	42.6	90.8	.688	32.27	29.30
Louisiana	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine	3	12	5.3	48.0	42.1	87.7	.613	29.42	25.78
Maryland	2	8	5.0	49.0	44.3	90.4	.618	30.28	27.33
Massachusetts	31	177	5.8	48.8	48.4	99.2	.703	34.31	34.01
Michigan	12	46	5.4	51.0	47.8	93.7	.687	35.04	32.79
Minnesota	5	9	5.8	50.1	49.2	98.2	.635	31.81	31.21
Missouri	10	48	5.8	50.6	46.9	92.7	.726	36.74	34.02
New Hampshire	5	12	5.3	50.3	44.9	89.3	.613	30.83	26.88
New Jersey	23	71	5.5	48.8	47.8	98.0	.782	38.16	37.40
New York	21	174	5.5	49.5	48.4	97.8	.773	38.26	37.40
Ohio	68	462	5.6	51.0	49.2	96.5	.740	37.74	36.42
Oregon	3	4	6.0	45.0	44.4	98.7	.779	35.06	34.56
Pennsylvania	42	254	5.4	52.5	49.9	95.0	.770	40.43	38.44
Rhode Island	11	36	5.4	50.4	46.3	91.9	.636	32.05	29.42
Tennessee	3	6	5.5	49.0	45.2	92.2	.667	32.68	30.13
Texas	3	3	6.0	49.3	47.4	96.1	.657	32.39	31.15
Washington	4	7	5.9	47.2	47.1	99.8	.784	37.00	36.90
Wisconsin	11	87	5.4	52.4	49.9	95.2	.703	36.84	35.04
Total	339	1,818	5.6	50.5	48.8	96.6	.742	37.47	36.20
Screw-machine hands and operators, male:									
Alabama	2	4	6.0	54.8	54.5	99.5	.595	32.61	32.43
California	3	7	5.3	46.9	44.7	95.3	.700	32.83	31.30
Connecticut	9	69	5.4	51.9	44.9	86.5	.686	35.60	30.82
Illinois	18	116	5.6	48.7	45.9	94.3	.740	36.04	33.96
Indiana	4	11	5.5	50.9	47.6	93.5	.591	30.08	28.10
Iowa	2	6	5.8	56.0	58.3	104.1	.503	28.17	29.31
Kansas	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Kentucky	3	8	4.9	46.6	38.8	83.3	.461	21.48	17.87
Maine	2	4	6.0	50.0	50.0	100.0	.562	28.10	28.10
Maryland	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts	26	115	5.8	49.5	47.8	96.6	.673	33.31	32.16
Michigan	15	68	5.6	50.3	48.0	95.4	.731	36.77	35.05
Minnesota	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Missouri	4	7	5.9	51.6	50.2	97.3	.495	25.54	24.85
New Hampshire	2	7	6.0	48.3	52.0	107.7	.679	32.80	35.35
New Jersey	12	30	5.8	49.8	48.5	97.4	.660	32.87	31.99
New York	14	170	5.2	48.0	45.8	95.4	.700	33.60	32.04
Ohio	49	432	5.6	50.0	48.1	96.2	.661	33.05	31.77
Pennsylvania	21	287	5.0	49.4	43.4	87.9	.644	31.81	27.98
Rhode Island	11	62	5.1	50.3	43.1	85.7	.573	28.82	24.68
Wisconsin	13	104	5.4	52.5	49.1	93.5	.617	32.39	30.33
Total	213	1,520	5.4	49.8	46.5	93.4	.664	33.07	30.89
Screw-machine hands and operators, female:									
Michigan	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total	3	10	5.7	48.7	44.9	92.2	.435	21.18	19.53

<sup>1</sup> Included in total.

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Sheet-metal machine hands and operators, male:</b>									
Connecticut.....	4	13	5.8	53.5	54.4	101.7	\$0.575	\$30.76	\$31.24
Georgia.....	2	2	6.0	53.8	53.8	100.0	.435	23.40	23.40
Illinois.....	15	153	5.5	50.0	47.2	94.4	.706	35.30	33.32
Indiana.....	7	68	5.4	50.4	48.4	96.0	.582	29.33	28.14
Iowa.....	3	18	5.9	52.5	57.0	108.6	.525	27.56	29.91
Massachusetts.....	18	78	5.6	49.0	45.2	92.2	.557	27.29	25.16
Michigan.....	16	84	5.6	51.1	47.9	93.7	.584	29.84	27.99
Minnesota.....	3	32	5.9	49.5	49.0	99.0	.566	28.02	27.76
Missouri.....	4	10	4.9	51.9	41.4	79.8	.518	26.88	21.48
New Hampshire.....	2	4	6.0	49.5	50.9	102.8	.603	29.85	30.69
New Jersey.....	5	34	5.8	49.6	49.8	100.4	.555	27.53	27.65
New York.....	6	74	5.6	48.1	47.5	98.8	.593	28.52	28.18
Ohio.....	21	78	5.6	49.6	45.4	91.5	.597	29.61	27.09
Oregon.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania.....	19	173	5.5	51.0	46.9	92.0	.596	30.40	27.95
Rhode Island.....	3	7	5.1	50.6	45.3	89.5	.507	25.65	22.99
Tennessee.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Texas.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Washington.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Wisconsin.....	5	32	5.3	51.6	45.3	87.8	.582	30.03	26.38
<b>Total.....</b>	<b>137</b>	<b>867</b>	<b>5.5</b>	<b>50.2</b>	<b>47.4</b>	<b>94.4</b>	<b>.603</b>	<b>30.27</b>	<b>28.56</b>
<b>Sheet-metal machine hands and operators, female:</b>									
Illinois.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	2	7	5.7	48.0	44.4	92.5	.463	22.22	20.55
Michigan.....	2	14	5.8	50.0	47.9	95.8	.549	27.45	26.32
New York.....	2	20	5.7	48.0	44.9	93.5	.390	18.72	17.49
Ohio.....	2	43	5.2	49.5	39.0	78.8	.402	19.00	15.71
Pennsylvania.....	2	76	5.9	48.0	47.5	99.0	.399	19.15	18.95
<b>Total.....</b>	<b>12</b>	<b>167</b>	<b>5.7</b>	<b>48.7</b>	<b>45.0</b>	<b>92.4</b>	<b>.420</b>	<b>20.45</b>	<b>18.88</b>
<b>Toolmakers, male:</b>									
Alabama.....	2	8	6.0	54.9	57.3	104.4	.746	40.96	42.69
California.....	15	56	5.8	46.0	47.7	103.7	.867	39.88	41.34
Connecticut.....	18	115	5.6	50.4	48.7	96.6	.735	37.04	35.83
Georgia.....	4	6	6.0	53.3	53.6	100.6	.717	38.22	38.46
Illinois.....	24	300	5.8	50.2	49.6	98.8	.818	41.06	40.62
Indiana.....	13	77	5.9	50.5	51.3	101.6	.703	35.50	36.05
Iowa.....	3	11	5.8	51.7	53.4	103.3	.642	33.19	34.30
Kansas.....	2	2	6.0	52.0	56.3	108.3	.642	33.38	36.13
Kentucky.....	6	12	5.8	46.6	44.4	95.3	.705	32.90	31.32
Louisiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine.....	4	16	5.5	48.1	45.0	93.6	.614	29.53	27.68
Maryland.....	4	42	5.8	48.0	46.9	97.7	.701	33.65	32.89
Massachusetts.....	35	283	5.7	48.8	47.7	97.7	.723	35.28	34.50
Michigan.....	24	202	5.7	50.8	49.2	96.9	.809	41.10	39.84
Minnesota.....	3	11	5.7	50.5	47.0	93.1	.668	33.73	31.40
Missouri.....	12	27	5.7	50.4	48.5	96.2	.744	37.50	36.03
New Hampshire.....	5	20	5.8	49.2	51.1	103.9	.805	39.61	41.15
New Jersey.....	17	85	5.7	49.3	47.3	95.9	.789	38.90	37.34
New York.....	20	407	5.7	48.2	48.0	99.6	.818	39.43	39.24
Ohio.....	64	607	5.6	49.4	47.6	96.4	.726	35.86	34.55
Oregon.....	2	3	5.7	44.0	45.3	103.0	.876	38.54	39.72
Pennsylvania.....	38	276	5.7	51.2	48.8	95.3	.722	36.97	35.27
Rhode Island.....	11	109	5.6	50.4	48.1	95.4	.708	35.68	34.07
Tennessee.....	3	9	5.8	49.1	47.2	96.1	.723	35.60	34.13
Texas.....	6	13	5.8	49.4	46.4	93.9	.712	35.17	33.03
Washington.....	4	6	6.0	47.2	46.8	99.2	.837	39.51	39.13
Wisconsin.....	14	159	5.7	52.5	50.3	95.8	.702	36.86	35.33
<b>Total.....</b>	<b>354</b>	<b>2,863</b>	<b>5.7</b>	<b>49.7</b>	<b>48.5</b>	<b>97.6</b>	<b>.756</b>	<b>37.57</b>	<b>36.63</b>

¹ Included in total.

**TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued**

**MACHINE SHOPS—Continued**

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
<b>Other precision-machine hands and operators, male:</b>									
Alabama.....	3	7	6.0	54.1	55.7	103.0	\$0.564	\$30.51	\$31.45
California.....	12	60	5.1	45.4	43.8	96.5	.806	36.59	35.32
Connecticut.....	13	114	5.7	50.9	53.6	105.3	.702	35.73	37.64
Georgia.....	4	14	5.6	54.3	56.2	103.5	.376	20.42	21.12
Illinois.....	27	418	5.6	49.8	47.8	96.0	.722	35.96	34.55
Indiana.....	10	53	5.7	50.7	51.8	102.2	.599	30.37	31.02
Iowa.....	3	33	5.8	54.0	55.1	102.0	.532	28.73	29.31
Kansas.....	2	2	6.0	54.0	54.0	100.0	.613	33.10	33.08
Louisiana.....	2	3	6.0	59.3	54.5	91.9	.478	28.35	26.05
Maine.....	3	9	5.2	46.7	41.0	87.8	.526	24.56	21.59
Maryland.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	32	126	5.8	49.7	48.2	97.0	.636	31.61	30.64
Michigan.....	15	52	5.6	50.5	49.5	98.0	.607	30.65	30.06
Minnesota.....	4	14	5.4	50.3	47.5	94.4	.596	29.98	28.29
Missouri.....	8	18	5.8	52.2	49.8	95.4	.621	32.42	30.91
New Hampshire.....	4	25	5.9	49.0	51.3	104.7	.661	32.39	33.91
New Jersey.....	18	70	5.2	49.6	44.0	88.7	.636	31.55	27.99
New York.....	20	144	5.6	48.9	47.7	97.5	.673	32.91	32.14
Ohio.....	66	403	5.6	50.6	48.7	96.2	.612	30.97	29.83
Oregon.....	2	5	5.6	46.4	42.5	91.6	.678	31.46	28.79
Pennsylvania.....	36	255	5.4	52.3	48.0	91.8	.666	34.83	31.98
Rhode Island.....	6	44	5.6	50.3	47.5	94.4	.617	31.04	29.33
Tennessee.....	3	10	5.9	49.0	47.3	96.5	.598	29.30	28.30
Texas.....	5	11	5.5	48.6	45.4	93.4	.574	27.90	26.03
Washington.....	3	10	5.8	47.3	46.8	98.9	.763	36.09	35.65
Wisconsin.....	14	98	5.6	53.6	53.0	98.9	.664	35.59	35.16
<b>Total.....</b>	<b>316</b>	<b>2,001</b>	<b>5.6</b>	<b>50.5</b>	<b>48.7</b>	<b>96.4</b>	<b>.659</b>	<b>33.28</b>	<b>32.09</b>
<b>Other precision-machine hands and operators, female:</b>									
Massachusetts.....	2	4	6.0	48.0	42.5	88.5	.514	24.67	21.85
Michigan.....	2	3	4.3	50.0	39.2	78.4	.602	30.10	23.58
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio.....	2	104	5.3	49.5	43.5	87.9	.309	15.30	13.44
<b>Total.....</b>	<b>8</b>	<b>122</b>	<b>5.4</b>	<b>49.3</b>	<b>43.8</b>	<b>88.8</b>	<b>.330</b>	<b>16.27</b>	<b>14.46</b>
<b>Other skilled occupations, male:</b>									
Alabama.....	3	65	5.8	54.9	54.2	98.7	.596	32.72	32.34
California.....	18	218	5.8	47.6	47.4	99.6	.764	36.37	36.21
Connecticut.....	18	281	5.9	50.7	51.4	101.4	.641	32.50	32.94
Georgia.....	5	23	5.7	53.1	50.1	94.4	.523	27.77	26.17
Illinois.....	36	1277	5.7	50.1	49.3	98.4	.679	34.02	33.46
Indiana.....	16	527	5.7	50.5	53.2	105.3	.595	30.05	31.69
Iowa.....	9	108	5.7	52.9	54.1	102.3	.545	28.83	29.50
Kansas.....	6	14	5.9	52.5	57.4	109.3	.590	30.98	33.89
Kentucky.....	8	20	5.6	48.1	45.4	94.4	.547	26.31	24.84
Louisiana.....	5	28	6.1	55.3	53.6	96.9	.595	32.90	31.88
Maine.....	5	43	5.7	49.3	47.4	96.1	.553	27.26	26.16
Maryland.....	5	71	5.1	41.3	43.7	105.8	.633	26.14	27.66
Massachusetts.....	39	804	5.7	49.4	48.7	98.6	.649	32.06	31.62
Michigan.....	35	915	5.6	50.9	49.2	96.7	.690	33.59	32.49
Minnesota.....	6	127	5.5	49.7	46.4	93.4	.633	31.46	29.41
Missouri.....	17	115	5.6	51.0	48.4	94.9	.577	29.43	27.91
New Hampshire.....	4	95	6.0	51.6	54.9	106.4	.631	32.56	34.67
New Jersey.....	26	456	5.8	49.7	49.8	100.2	.663	32.95	32.99
New York.....	25	1,307	5.7	48.4	48.8	100.8	.677	32.77	33.05
Ohio.....	84	1,903	5.6	50.2	48.0	95.6	.631	31.68	30.30
Oregon.....	6	45	5.4	44.4	41.2	92.8	.725	32.19	29.84
Pennsylvania.....	43	1,829	5.5	50.9	48.1	94.5	.657	33.44	31.60
Rhode Island.....	12	215	5.8	50.5	49.9	98.8	.633	31.97	31.55
Tennessee.....	7	37	5.9	48.9	49.1	100.4	.604	29.54	29.70
Texas.....	11	96	5.8	49.9	48.4	97.0	.603	30.09	29.17
Washington.....	5	36	5.7	47.8	45.5	95.2	.770	36.31	35.04
Wisconsin.....	14	458	5.6	52.2	50.6	96.9	.632	32.99	31.97
<b>Total.....</b>	<b>468</b>	<b>11,113</b>	<b>5.7</b>	<b>50.1</b>	<b>49.1</b>	<b>98.0</b>	<b>.650</b>	<b>32.57</b>	<b>31.90</b>

<sup>1</sup>Included in total.

# 52 WAGES AND HOURS—FOUNDRIES AND MACHINE SHOPS

TABLE A.—Average number of days on which employees worked, average full-time and actual hours and earnings per week, average earnings per hour, and per cent of full time worked, 1927, by occupation, sex, and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average—			Per cent of full-time hours actually worked	Average earnings—		
	Estab-lish-ments	Em-ployees	Num-ber of days worked in one week	Full-time hours per week	Hours actually worked in one week		Per hour	Full-time, per week	Made in one week
Other skilled occupations, female:									
Illinois.....	2	16	5.6	51.6	48.2	93.4	\$0.321	\$16.56	\$15.47
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	2	8	5.4	48.0	43.7	91.0	.537	25.78	23.43
Michigan.....	11	106	5.1	50.4	42.0	83.3	.375	18.90	15.79
New Hampshire.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	2	11	5.8	50.0	46.9	93.8	.396	19.80	18.55
New York.....	4	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio.....	1	29	5.7	48.2	43.1	89.4	.480	23.14	20.70
Pennsylvania.....	2	41	5.8	48.0	47.2	98.3	.397	19.06	18.75
Rhode Island.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	27	317	5.5	47.7	43.5	91.2	.401	19.13	17.44
Other employees, male:									
Alabama.....	6	27	5.4	53.6	49.9	93.1	.382	20.48	19.05
California.....	22	237	6.8	45.8	45.1	98.5	.558	25.56	25.20
Connecticut.....	18	393	5.7	50.6	50.5	99.8	.544	27.53	27.43
Georgia.....	6	25	5.7	53.8	49.8	92.6	.302	16.25	15.04
Illinois.....	36	1,052	5.7	50.2	49.0	97.6	.605	30.37	29.04
Indiana.....	16	362	5.7	51.2	51.3	100.2	.510	28.11	26.15
Iowa.....	8	53	5.7	53.4	52.0	97.4	.495	26.43	25.70
Kansas.....	8	22	6.0	53.5	53.5	100.0	.469	25.09	25.07
Kentucky.....	8	45	5.4	46.0	41.4	90.0	.405	18.63	16.80
Louisiana.....	6	35	5.5	53.9	49.0	90.9	.376	20.27	18.40
Maine.....	5	38	5.8	48.9	47.5	97.1	.549	28.85	26.06
Maryland.....	6	87	6.3	47.9	42.9	89.6	.482	23.09	20.68
Massachusetts.....	39	1,137	5.6	49.6	47.4	95.6	.512	25.40	24.25
Michigan.....	36	591	5.7	53.4	49.9	93.4	.573	30.60	28.58
Minnesota.....	6	65	5.7	50.3	48.8	97.0	.512	25.75	24.98
Missouri.....	20	126	5.7	51.3	48.5	94.5	.461	23.65	22.37
New Hampshire.....	6	49	5.9	51.2	53.6	104.7	.486	24.88	26.04
New Jersey.....	23	616	5.8	49.5	49.1	99.2	.550	27.23	27.02
New York.....	23	933	5.6	48.1	48.1	100.0	.563	27.08	27.06
Ohio.....	85	1,123	5.6	50.5	48.3	95.6	.480	24.24	23.20
Oregon.....	6	53	5.5	44.6	41.3	92.6	.618	27.56	25.54
Pennsylvania.....	44	1,384	5.5	50.9	48.2	94.7	.536	27.28	25.85
Rhode Island.....	11	85	5.8	50.7	51.2	101.0	.530	26.87	27.13
Tennessee.....	7	38	5.8	49.9	46.8	93.8	.383	19.11	17.89
Texas.....	13	163	5.5	49.6	45.8	92.3	.424	21.03	19.42
Washington.....	5	69	5.8	47.5	46.2	97.3	.550	26.13	25.36
Wisconsin.....	15	544	5.6	52.6	49.0	93.2	.409	21.51	20.02
Total.....	487	9,352	5.6	50.3	48.5	96.4	.526	26.46	25.50
Other employees, female:									
Illinois.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Indiana.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts.....	6	12	5.8	48.2	47.1	97.7	.276	13.30	13.00
Michigan.....	4	8	5.0	50.0	43.1	86.2	.350	17.50	15.06
New Jersey.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New York.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Ohio.....	3	77	5.6	49.1	45.1	91.9	.294	14.44	13.25
Pennsylvania.....	2	12	6.0	48.0	49.4	102.9	.334	16.03	16.49
Total.....	20	123	6.1	49.3	46.4	94.1	.309	15.23	14.34

<sup>1</sup> Included in total.



TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State

## FOUNDRIES

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																				
	Estab-lish-ments	Em-employees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2
Chippers and rough grinders, male:																								
Alabama.....	2	23	\$0.313				19	4																
California.....	21	101	.616							2	17	20	22	22	7	9	2							
Colorado.....	3	40	.434				1	3	23	9	2		1	1										
Connecticut.....	16	114	.507					2	20	26	32	18	12	3			1							
Georgia.....	4	38	.240	1	22	6	7	1	1															
Illinois.....	24	293	.610				1	3	9	19	55	62	72	20	14	14	10	6		6	1	1		
Indiana.....	13	166	.504				1	6	36	59	21	11	12	9	2	1	7	1						
Iowa.....	11	70	.492					14	17	9	13	5	3	4	1	3			1					
Kansas.....	8	38	.393				7	11	16	4														
Kentucky.....	5	20	.401			2	4	4	3	4	1	2												
Louisiana.....	3	34	.362		2	1	4	21	3															
Maine.....	3	24	.473						15	3	2		1	1	1	1								
Maryland.....	7	37	.442					9	13	6	4	4	1											
Massachusetts.....	28	378	.537					3	100	32	103	63	24	17	5	12	1	6	2	4	6			
Michigan.....	38	380	.574	1	1		2	9	18	72	95	41	29	48	29	21	7	5	1	1				
Minnesota.....	5	43	.573						11	7	6	2	3	5	4			1			1			
Missouri.....	11	51	.499				1	1	6	19	5	16	2		1									
New Hampshire.....	5	27	.500					2	5	6	7	4		1	1			1						
New Jersey.....	17	250	.570						15	34	37	70	35	24	23	7	3	1						
New York.....	23	296	.594					4	20	32	50	67	38	27	24	14	8	4	3	1	3	1		
Ohio.....	50	486	.499			1	1	11	89	158	98	82	29	8	4	1				1	2	1		
Oregon.....	7	23	.576							2	18	1		1	1									
Pennsylvania.....	38	470	.538				4	27	52	60	150	63	58	19	5	18	1	4		4	5			
Rhode Island.....	8	120	.516					4	17	33	32	11	7	5	4	3	1	2		4				
Tennessee.....	4	33	.237			5	16	6	5	1										1				
Texas.....	5	22	.364				9	6	5	1	1													
Washington.....	7	26	.648									5	6	12	3									
Wisconsin.....	13	254	.597					3	3	83	55	31	10	13	17	6	6	4	5	3	14	1		
Total.....	379	3,857	.537	2	23	15	77	154	502	679	791	595	366	240	145	111	48	36	20	16	32	3		

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																				
	Establishments	Employees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2
Core makers, male:																								
Alabama.....	3	19	\$0.544				1	3	3	2	1	1		1	5	2								
California.....	21	117	.919								1	1		2	2	16	12	11	5	2	65			
Colorado.....	3	20	.771									1	3	1	2	4	3	3	2	1				
Connecticut.....	16	96	.774								1	4	9	5	7	8	13	26	10	3	3			
Georgia.....	7	31	.434			2	6	7	5	1	4		1		2	3								
Illinois.....	26	227	.818				4	1	4	1	7		4	16	12	17	19	40	15	22	16	48	1	
Indiana.....	16	170	.664					1	8	7	18	26	22	21	20	19	4	7	7	3	6	1		
Iowa.....	11	78	.719						3	1	6	12	7	1	7	18	5	11		4	1			
Kansas.....	8	15	.563								4	4	3	1	1									
Kentucky.....	6	9	.653						1		1		1	2		4								
Louisiana.....	5	14	.664			2					2		2				6		2					
Maine.....	4	9	.555					2			3	5	8	1	2	2	4	3	9					
Maryland.....	7	52	.650					4	3		4	8	9		6	8	17	8	7	78	4	6	1	1
Massachusetts.....	28	163	.823								2	8	8		6	8	46	31	25	20	10			
Michigan.....	35	338	.714				1	3	6	15	14	25	43	44	46	45	31	25	14	10				
Minnesota.....	5	51	.721								3	5	18	1	1	4	7	14		2	1			
Missouri.....	12	63	.750			1		3	2	2	3	9	2	4	4	2			27	2	1			
New Hampshire.....	7	9	.732								2				1	2	2	1						
New Jersey.....	17	130	.804						3	2	4	9	10	4	12	10	14	15	25	6	16			
New York.....	24	220	.765				1	2	2	3	9	8	28	24	14	26	28	44	17	2	12	1		
Ohio.....	51	393	.793						5	5	17	22	30	22	34	55	35	21	77	35	35			
Oregon.....	7	12	.831											1	3		3		3	1				
Pennsylvania.....	38	512	.789				2	2	4	9	25	31	34	34	37	47	83	46	39	60	58	1		
Rhode Island.....	8	52	.619						3	2	8	6	13	9	4	5	1	1						
Tennessee.....	7	41	.607						2	7	4	3	4	2	4	1	1	9						
Texas.....	9	26	.585		2		2	1	3	2	7	4	1		4	1	2	3	1					
Washington.....	7	17	.798										1			4	6	4	1					
Wisconsin.....	13	156	.732							5	7	17	17	13	17	35	20	13	8		4			
Total.....	401	3,040	.755		2	5	18	31	60	71	167	208	277	218	251	348	328	286	350	148	266	4	2	

Core makers, female:																								
Illinois	4	52	.555				2	1	9	5	10	6	5	4	2	2	2	4	2					
Indiana	2	18	.564						1	2		5	3	2	2									
Kentucky	2	5	.446						2	2	1													
Massachusetts	2	3	.659							1		1								1				
Michigan	7	55	.421		5	4	8	9	10	11	2	2	1	2	1									
New Jersey	4	49	.474			15	9		1	3	7	4	3	3				1		2	1	1		2
New York	7	54	.530					6	13	6	14	3	4	1	1	1	1	1						
Ohio	2	14	.466				1	3	1	3		1	3											
Pennsylvania	3	29	.427			4	3	3	4	9	3	1	2		1									
Rhode Island	2	7	.420			2	1		2			2												
Wisconsin	4	31	.517				2	5	7	2	1	2	4	2	1	1	3		1					
Total	41	324	.491		5	29	28	31	52	40	41	29	22	15	7	5	9	2	5	2	2			
Laborers, male:																								
Alabama	4	67	.306			1	14	46	4	2														
California	20	258	.557							40	65	79	55	13	3	1								
Colorado	2	24	.438						2	15	4													
Connecticut	16	490	.478					10	10	129	167	106	43	14	3	1	2	3	2					
Georgia	7	165	.256		2	40	82	36	4	1														
Illinois	28	902	.549					4	26	91	232	147	132	128	38	19	29	17	14	12	3			
Indiana	15	839	.477		1			4	66	300	175	148	56	26	25	15	6	11	3	3				
Iowa	11	186	.473			3	2	1	41	40	31	21	27	5	5	3	7							
Kansas	6	28	.393					6	10	7	2		1											
Kentucky	4	23	.380				3	1	1	14	4													
Louisiana	4	34	.353			7	2	8		3	13													
Maine	3	39	.476							6	27	3			1									
Maryland	7	135	.381				4	12	83	23	4	6				1								
Massachusetts	28	695	.501					1	4	111	282	163	46	21	33	7	20	5	1			1		
Michigan	39	1,521	.529		1		4	15	20	167	331	463	205	98	65	49	25	33	12	5	7	14	2	
Minnesota	5	105	.491					2	4	46	21	7	8	3	2	9	2	1						
Missouri	12	145	.445				2	10	33	35	31	18	13	2	1									
New Hampshire	6	31	.466						2	10	8	7	2	1	1									
New Jersey	17	705	.468					1	51	129	287	169	48	11	4	5								
New York	25	741	.525					4	96	143	249	155	40	12	12	7	6	9	6			2		
Ohio	52	1,237	.475			2	2	32	416	342	266	110	35	11	8	3	1	3		1	4	1		
Oregon	7	53	.514							2	8	31	12											
Pennsylvania	40	1,602	.497			4	41	50	433	447	310	71	60	35	26	44	49	25	6	1				
Rhode Island	8	193	.487					1	2	13	95	57	16		1	2								
Tennessee	7	87	.296				45	34	7	1														
Texas	9	196	.333			1	137	43	7	8														
Washington	6	55	.569						1		18	27	8		1									
Wisconsin	13	461	.539				2	3	13	29	159	107	46	29	17	15	21	9	3	8				
Total	401	11,017	.491		4	51	167	375	522	2,129	2,861	2,369	1,103	542	269	175	167	135	72	40	12	19	5	

<sup>1</sup> Including data for 2 establishments for which details are not shown.



Illinois.....	28	361	.831				2	2	2	8	10	20	38	23	27	21	37	19	35	116	1			
Indiana.....	15	288	.709					2	10	18	24	27	59	37	27	23	37	19	3	2				
Iowa.....	11	130	.816			1			3	3	8	9	6	6	25	15	34	11	5	9				
Kansas.....	9	44	.623						1	9	10	5	4	7	7		1							
Kentucky.....	7	35	.657						2	2	2	4	4	4	10	4	2							
Louisiana.....	5	41	.703					1	1	5	1	4	1	2	2	24	1							
Maine.....	4	35	.667							9	1	14	4	2					1	3	1			
Maryland.....	7	96	.773			1				5	8	4	11	3	12	19	1	24	2	4				
Massachusetts.....	27	367	.971						2	3	3	3	17	5	7	24	15	184	16	41	29	10	10	
Michigan.....	33	417	.789						1	2	16	20	33	43	63	74	43	62	21	18	3			
Minnesota.....	4	45	.667							3	3	3	28	7	1									
Missouri.....	12	146	.817				2				1	16	13	12	15	5	2	61	8	5				
New Hampshire.....	8	49	.735					1	4	1	1	6	8	6	9	8	4	1	2					
New Jersey.....	16	262	.888							1	6	8	8	15	31	26	24	49	36	52	4			
New York.....	25	326	.832						1	1	11	7	32	40	58	52	38	31	12	41	3			
Ohio.....	51	832	.848				3	3	17	21	12	38	58	58	45	98	95	152	119	97	12	4		
Oregon.....	7	38	.865												1	15	14	3	2					
Pennsylvania.....	40	739	.817						1	10	18	20	49	59	107	109	47	68	108	79	8	2		
Rhode Island.....	8	106	.759							4	8	13	25	12	7	8	24	4	12	14	2			
Tennessee.....	7	87	.696	1	1		2		2	5	4	9	11	18	4									
Texas.....	10	69	.732					2	2	2	7	13	5	4	4	15	12	4		1				
Washington.....	7	67	.843											1	13	31	19	1	2					
Wisconsin.....	12	176	.800					2	2	7	11	5	16	16	33	28	15	12	8	20	1			
Total.....	402	5,375	.820	1	1	2	9	22	64	155	173	292	484	420	604	703	548	769	391	644	67	16	10	
Molders, machine, male:																								
California.....	6	16	.955									1	1	2			2	3	2	4				1
Colorado.....	2	4	.638									2	1	1										
Connecticut.....	8	111	.648			1	3	8	6	11	10	12	18	13	10	7	4	3	1	4				
Georgia.....	2	17	.706								4	4	1		2	1				2				
Illinois.....	13	217	.787					1	2	7	9	9	17	23	41	49	17	20	12	10				
Indiana.....	12	336	.724	1	1	3	6	8	14	32	23	39	32	22	35	35	42	33	9	8	5			
Iowa.....	7	68	.691				1	2	3	7	9	6	11	6	10	3	5	3	1	1				
Kansas.....	2	6	.584				1			1	1	2				1								
Kentucky.....	3	12	.569				1	2	1	2	1				5									
Maryland.....	4	29	.639				1	3	2	5	7	2			2	1	2	3		1	1			
Massachusetts.....	23	326	.896							14	15	26	26	21	19	30	28	74	21	44	5	1		
Michigan.....	21	456	.730			2	8	11	25	33	30	48	53	55	45	28	34	26	10	30				
Minnesota.....	3	25	.666						1	7	5			2	1	2	4	2		1				
Missouri.....	3	28	.637					1	3				15	8	1									
New Hampshire.....	2	19	.793							1	1	4	1	1		2	2	4	1	2				
New Jersey.....	15	220	.757				1	2	2	12	13	16	27	21	34	31	22	17	14	7	1			
New York.....	17	312	.787						1	4	11	20	27	32	54	35	25	15	26	22	34	5	1	
Ohio.....	25	247	.765			1	3	5	10	17	11	21	31	13	26	17	17	25	21	31	1			
Pennsylvania.....	26	214	.700				3	10	8	18	26	24	23	16	23	15	15	14	10	9				
Rhode Island.....	7	101	.772				1		3	7	6	5	7	11	17	11	11	9	5	8				
Tennessee.....	2	7	.444			2	1			2			2											
Texas.....	3	19	.708				1	1	1	2	1	1	3	1	1	2	2	1		1	1			
Wisconsin.....	11	288	.772				2			6	14	16	26	39	34	31	31	30	18	14	27			
Total.....	220	3,102	.753	1	1	9	3	27	55	93	205	208	275	347	309	328	312	252	278	146	224	26	2	1

<sup>2</sup> Including data for 1 establishment for which details are not shown.

<sup>3</sup> Including data for 2 establishments for which details are not shown.

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																				
	Establishments	Employees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2
Molders' helpers, floor, male:																								
Alabama.....	4	62	\$0.325			3	44	4	6	4	1													
California.....	11	53	.616							1	11	5	21	8	4	2		1						
Colorado.....	3	59	.466					11	20	9	10	4	5											
Connecticut.....	12	82	.533					1	2	32	27	5	3	2	4	2	3		1					
Georgia.....	5	51	.259		23	21	3		2	1	1													
Illinois.....	17	102	.543					6	10	24	28	7	5	7	7	6	1	1						
Indiana.....	10	103	.440				1	11	37	22	28	3	1											
Iowa.....	7	24	.431					3	15	1	5													
Kansas.....	8	46	.372			1	20	10	4	5	6													
Kentucky.....	7	20	.379			2	1	2	11	3	1													
Louisiana.....	5	52	.404		9	1	5	1	1	23	9	3												
Maryland.....	4	21	.451				4	5	4	1	1	2			2	2								
Massachusetts.....	20	98	.528				4	9	29	23	16	4	3	4	2	4		2	1		1			
Michigan.....	12	108	.597				1	5	20	17	14	19	9	10	3	4	4	4	1		1			
Minnesota.....	3	30	.438						28	2														
Missouri.....	9	99	.499				8	9	4	10	48	12	6	2										
New Jersey.....	9	106	.493				3	13	24	27	18	3	7	6	1			1						
New York.....	17	80	.576						3	13	21	15	10			2								
Ohio.....	24	207	.473				6	32	42	42	51	11	8	9		1		1	2	1	1			
Oregon.....	5	16	.506							2	7	5			1									
Pennsylvania.....	24	224	.546					3	16	47	53	34	30	15	11	7	2							
Rhode Island.....	4	10	.526							4	2	1	2											
Tennessee.....	6	66	.313			5	57	4																
Texas.....	8	38	.398				14	5	5	12	1		1											
Washington.....	5	22	.617							2	7	5	10	1	4	1								
Wisconsin.....	7	38	.498					3	2	22	2		1	2						1				
Total <sup>2</sup> .....	247	1,820	.484		32	33	166	128	250	354	380	149	138	86	46	28	10	10	5	2	3			
Pattern makers, male:																								
Alabama.....	3	17	.785										1			1	15							
California.....	11	33	1.003													1		6	4	1	20	1		
Colorado.....	2	4	.899													1					2			
Connecticut.....	4	18	.651							1	3	1	1	8	2				1	1				

Georgia.....	4	15	.669				1	2		3	1	1	1	2		2	2						
Illinois.....	12	139	.891							1	3	7	5	13	16	17	10	28		39			
Indiana.....	10	89	.932							1	2	3	6	13	17	2			39	3			
Iowa.....	8	17	.685					2			2	4		3	2	2	1						
Kansas.....	8	11	.722				1		2	3				1	1			1		1			
Louisiana.....	2	3	.759													2							
Maine.....	3	14	.629					2			1		1										
Maryland.....	3	20	.741						2		2												
Massachusetts.....	22	154	.752					2			2		2		2	2	4	2					
Michigan.....	29	139	.846				1			6	22	15	28	26	23	11	21		2				
Minnesota.....	5	25	.730						2	4	5	9	13	20	20	8	19	12	13	12			1
Missouri.....	7	35	1.070						1		1	2	8	6	5								
New Hampshire.....	2	8	.773						1						4								
New Jersey.....	13	137	.862						2	1		1			2	2	1		29	1			
New York.....	20	115	.815								4	6	12	19	15	29	16	18	16				
Ohio.....	30	178	.836							2				23	20	19	64	5	7				
Oregon.....	2	8	.912							3	8	1	11	23	19	64	14	8		1			
Pennsylvania.....	30	161	.836						1					1					4				
Rhode Island.....	3	11	.662							2	1	5	1	2	58	7	22	13	19	1			
Tennessee.....	5	13	.876										2	3				3	1				
Texas.....	4	6	.713								3				1		1		1				
Washington.....	2	7	.902													5			2				
Wisconsin.....	10	132	.780							1	5	13	24	34	34	11	6	3	1				
Total.....	259	1,512	.830				1	4	5	25	28	79	99	153	187	246	159	199	101	205	20		1

## MACHINE SHOPS

[illegible]

<sup>2</sup> Including data for 1 establishment for which details are not shown.





Oregon	4	12	792									5	3	2		1		1			
Pennsylvania	42	334	706				3	4	8	21	22	44	46	65	3	38	22	13	4	2	
Rhode Island	2	8	634						1	10	6	4	5	3	1	1					
Tennessee	9	8	635						1	1	1		2	2							
Texas	5	6	561					1	1	1		2	1								
Washington	3	15	793												5	8	2				
Wisconsin	14	163	744						2	2	10	29	28	28	12	21	13	8	3	6	1
Total	354	2,208	727				12	16	42	100	138	273	312	352	305	295	178	79	51	51	4
Drill-press hands and operators, male:																					
Alabama	2	26	406			5	6	8	1	3	1		2								
California	18	115	670					1	2	9	14	17	33	12	7	13	4	1	2		
Connecticut	17	155	607				1	6	14	31	20	25	16	16	18	3	1	2	1		
Georgia	3	12	368		1	3	4	3													
Illinois	34	733	687		2	6	14	29	54	86	87	65	136	118	69	36	25	4	2		
Indiana	14	168	541		1	5	26	29	32	24	23	15	9	3	1						
Iowa	7	78	487		2	2	3	6	10	17	16	6	11	4	1						
Kansas	6	15	436			2		8	2	2	1										
Kentucky	7	21	493			2	1	4	5	1	5	1	2								
Louisiana	2	5	352		3	1						1									
Maine	2	22	550					6	3	1	3	4	4	1							
Maryland	5	51	550				1		8	25	5	4	3	1	1		1	1			
Massachusetts	37	349	626				2	2	25	56	62	59	67	40	15	11	5	3			
Michigan	29	327	577		1	4	48	40	35	27	37	30	14	18	33	26	11	1	1	1	
Minnesota	5	35	694					1	2	5	1	3	4	4	8	4	2			1	
Missouri	17	89	515		1	2	12	10	13	15	6	18	8	4							
New Hampshire	7	22	647					1	1	1	4	7	3	3	3						
New Jersey	28	205	640					2	14	37	34	30	26	17	17	15	6	6		1	
New York	23	413	638				2	14	29	28	50	99	85	46	35	10	3	4	1		2
Ohio	79	755	587		1	3	6	23	27	57	125	144	163	94	55	31	16	7	2		
Oregon	6	18	634								4	8	3	2	1						
Pennsylvania	43	682	578		9	15	29	58	57	115	89	96	69	64	46	16	14	1	3	1	
Rhode Island	12	109	573		1			5	10	36	21	12	10	4	4	3	1	2			
Tennessee	4	26	468			5	2	4	3	4	4	1	2	1							
Texas	6	29	504				4	6	1	3	5	1	3	4	1						
Washington	3	24	701							7	1	2	7	8	6						
Wisconsin	15	275	596			1	1	5	29	56	59	51	34	14	14	10	1				
Total	433	4,759	605		3	21	53	153	260	386	683	688	755	574	456	361	198	91	46	16	13
Filters and bench hands, male:																					
Alabama	2	12	593				1		2	2		1	2	1	2	1					
California	17	197	796					1	5	14	1	7	8	17	27	51	26	14	11	15	
Connecticut	11	277	651				3	1	7	39	34	49	57	31	31	14	4	1	2	4	
Georgia	2	19	267		8	7	3					1									
Illinois	24	562	721			1	3	7	21	38	47	60	65	74	68	59	42	37	19	20	1
Indiana	10	131	638				1	5	4	19	18	20	21	19	11	3	5	3			
Iowa	4	38	422		1	1	19	5	4	1	1	5	1								
Kansas	4	12	496			1		3	2	3		1	2								
Kentucky	5	29	580				3	2	3	2	6	4	3	4		1	1				
Maine	2	63	502				7	9	12	12	18	4	1								

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																				
	Establishments	Employees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2
<b>Fitters and bench hands, male—</b>																								
Continued.																								
Massachusetts	35	1,100	\$0.660					2	13	115	202	206	203	148	91	44	30	22	9	14	1			
Michigan	25	489	.651				8	26	32	42	39	67	87	61	65	33	18	5	5					
Minnesota	5	12	.668						1	1			2	2	2				1					
Missouri	10	64	.545				1	10	14	11	7	10	5	18	27	5		1						
New Hampshire	5	72	.723					1		6	2	4	7	18	27	5								
New Jersey	25	378	.641				3	12	22	81	38	51	34	23	43	25	28	7	5			1		
New York	20	922	.716							18	45	142	198	204	133	78	64	24	10	6				
Ohio	62	856	.650					14	45	89	97	152	159	151	67	32	23	18	4		4	1		
Oregon	3	8	.708											2	5	1								
Pennsylvania	33	952	.633		1	7	33	61	47	76	106	145	140	153	87	40	25	22	4	5				
Rhode Island	6	114	.595				2	4	4	21	35	21	8	9	5	3		2						
Tennessee	3	20	.511				1	4	3	2	7	2			1									
Texas	2	6	.522						1	5														
Washington	3	31	.775											6	13	11	1							
Wisconsin	13	293	.635				1	6	15	37	62	53	39	37	20	10	9	1		3				
Total	332	6,661	.662		8	9	13	86	173	257	634	765	1,007	1,045	965	698	413	276	158	70	78	5	1	
<b>Grinding-machine hands and operators, male:</b>																								
California	10	47	.779							2	4	3	5	9	1	7	3	8		5				
Connecticut	15	122	.628				1	1	6	20	17	26	23	13	8	2	3	1	1					
Georgia	2	5	.434		1			1	1				1											
Illinois	24	412	.735			1	1	9	6	18	40	46	43	48	51	43	61	21	8	16				
Indiana	11	93	.632					6	9	8	15	14	13	12	6	8	1		1					
Iowa	5	38	.543				3	2	6	8	7	7	3	1										
Kansas	2	3	.656						1				1		1									
Kentucky	3	4	.509					1	2															
Maine	2	8	.608							1	2	4	1											
Maryland	2	17	.735										1	12	1	11	2	1	1					
Massachusetts	34	185	.651						5	17	31	50	21	25	20	23	18	4	1	2				
Michigan	21	173	.658			2	6	6	11	28	8	18	17	13	15	23	18	4	2	2				

<sup>4</sup> Including data for 5 establishments for which details are not shown.

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State—Continued

**MACHINE SHOPS**—Continued

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																									
	Estab-lish-ments	Em-ple-ees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2					
Lathe hands and operators, engine, male—Continued.																													
Indiana	10	183	\$0.643						3	14	29	19	25	27	40	11	6	4	1		4								
Iowa	7	48	.585					1	1	5	11	4	11	9	4	2													
Kansas	7	40	.659					1	1	3	10	5	4	5	2						9								
Kentucky	7	46	.612						6	5	3	1	12	3	9		3	1										\$1	
Louisiana	3	19	.630				2		1	4					2	1	3	6											
Maine	3	56	.604						1	6	8	8	12	9	11		1												
Maryland	4	31	.586						1	10	7	2		5	1	2				1	2								
Massachusetts	36	648	.638						1	9	76	128	169	100	96	36	16	4	5	6									
Michigan	21	278	.643				1	16	16	30	29		42	43	33	33	14	11	6	2	2								
Minnesota	5	53	.647						1	5	6	7	3	14	3	3	6	9	1	1									
Missouri	16	159	.657			1	5	9		10	16	14	13	14	8	6	53	9	1	1									
New Hampshire	6	54	.641							1	5	7	21	5	9	6													
New Jersey	22	252	.723						1	3	6	14	31	50	41	39	30	19	10	4	4								
New York	22	438	.724						2	5	14	22	50	78	104	72	37	28	9	12	5								
Ohio	80	1,014	.694					6	16	21	67	83	164	171	186	127	75	43	12	23	16	4							
Oregon	5	26	.772																										
Pennsylvania	44	727	.687			2	4	9	21	27	36	60	92	108	138	75	82	39	17	7	10								
Rhode Island	11	125	.607					1	5	8	12	20	37	26	11	1	3												
Tennessee	3	40	.608						2	3	8	3	3	5	15	1													
Texas	6	66	.679							3	11	3	5	7	4	21	9	2			1								
Washington	4	40	.779												3	19	15	3											
Wisconsin	14	266	.695						1	11	2	28	45	69	37	36	17	9	5	3	3								
Total	414	5,964	.695			2	7	29	95	190	417	516	867	875	916	738	627	313	143	102	115	10	1					\$1	
Lathe hands and operators, turret, male:																													
California	15	96	.809										5	3		11	19	14											
Connecticut	16	91	.705								9	10	9	7		19	23	6	3	4									
Georgia	3	6	.448			1	1	1	1	1							1												
Illinois	23	432	.720					4	12	21	34	39	37	43	40	42	46	56	19	19	20								
Indiana	6	80	.608						1	9	14	13	18	12	5	2	4												
Iowa	5	38	.542					2	4	4	10	9	4	5															
Kansas	2	5	.631				1							2	1	1													
Kentucky	6	42	.486			1		3	11	12	6	3	3	2	1														

\* Over \$2 per hour.

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																				
	Estab-lish-ments	Em-employees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2
Machinists' and toolmakers' help-ers, male:																								
Alabama	3	14	\$0.332			2	6	4	2															
California	20	94	.608						2	1	10	31	31	15	4									
Connecticut	9	162	.499			1	2	4	46	34	31	29	8	4	3									
Georgia	4	7	.292		1	3	1	2																
Illinois	17	146	.582				1	2	9	23	25	16	24	16	18	9	3							
Indiana	6	22	.491					1	7	2	7	1	4											
Iowa	5	11	.400					5	3	2	1													
Kansas	8	56	.433				9	10	14	5	10	5	1			1	1							
Kentucky	2	4	.468						1	2	1													
Louisiana	2	24	.523						1	12	4	3	2	2										
Maine	3	9	.449					1	3	3	2													
Maryland	6	53	.465					2	5	30	9	6	1											
Massachusetts	12	77	.518						3	15	34	19	6											
Michigan	11	57	.516					3	9	12	13	4	9	4	3									
Missouri	11	28	.446			1	3	6	2	9	2	2			1	2								
New Jersey	23	73	.563						2	6	26	19	6	9	4				1					
New York	21	96	.527						8	13	37	25	8	4	1									
Ohio	34	209	.501					4	42	42	73	18	17	11	2									
Oregon	5	14	.611								1	4	3	6										
Pennsylvania	26	159	.512				3	4	21	45	42	18	11	9	3	3								
Rhode Island	9	71	.449				2	3	30	20	15													
Tennessee	4	15	.334		1	4		3	2	4														
Texas	8	41	.521						10	6	12		3	4	2			1						
Washington	5	18	.631								2	9	6	1										
Wisconsin	13	205	.498					2	12	38	65	45	17	12	12	1		1						
Total <sup>1</sup>	269	1,671	.510		2	11	32	65	262	351	402	222	155	103	43	15	6		2					
Milling-machine hands and oper-ators, male:																								
Alabama	2	6	.667									1	2	1		2								
California	13	57	.836									1	4	1	4	9	10	10	9	4	5			
Connecticut	16	147	.638					1	2	13	20	21	23	20	17	16	5	5	1	2				
Illinois	25	375	.761				1		4	8	16	21	30	38	43	54	58	37	32	16	16	1		

<sup>1</sup> Including data for 2 establishments for which details are not shown.  
<sup>2</sup> Including data for 1 establishment for which details are not shown.  
<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE B.—Average and classified earnings per hour in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average earnings per hour	Number of employees whose earnings per hour were—																					
	Estab-lish-ments	Em-ployees		Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 35 cents	35 and under 40 cents	40 and under 45 cents	45 and under 50 cents	50 and under 55 cents	55 and under 60 cents	60 and under 65 cents	65 and under 70 cents	70 and under 75 cents	75 and under 80 cents	80 and under 85 cents	85 and under 90 cents	90 and under 95 cents	95 cents and under \$1	\$1 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and under \$1.75	\$1.75 and under \$2	
<b>Planer hands and operators, male:</b>																									
Alabama.....	2	6	\$0.747										1		2	1	2								
California.....	14	41	.819											1	7	9	7	7	5	4	1				
Connecticut.....	17	148	.723							3	9	15	15	34	17	19	11	17	3	3	2				
Georgia.....	2	10	.453					4	3	1	1			1											
Illinois.....	23	135	.862							1	3	2	11	12	12	9	11	14	15	6	35	3	1		
Indiana.....	9	34	.658					1		3	1	2	5	11	6	2		1	1						
Iowa.....	4	6	.654									2		1	3										
Kansas.....	6	6	.550						1		2		2	2		1									
Kentucky.....	4	13	.688										3	2	4	2	2								
Maine.....	3	12	.613									1	4	4	1	1									
Maryland.....	2	8	.618						1	3				1	1	1				1					
Massachusetts.....	31	177	.703								5	19	42	35	31	23	5	7	3	2	4	1			
Michigan.....	12	46	.687						1	1	3	6	8	10	6	2	4	3	1					1	
Minnesota.....	5	9	.635									2	3	2	1		1								
Missouri.....	10	48	.726						1			7	6	1	2	1	25	4	1						
New Hampshire.....	5	12	.613									4	5	3											
New Jersey.....	23	71	.782									9	9	9	12	6	14	9	2	6	4				
New York.....	21	174	.773							1	3	8	6	24	40	27	24	16	9	12	4				
Ohio.....	68	462	.740						1	7	21	29	51	58	87	80	46	24	25	17	13	2	1		
Oregon.....	3	4	.779													2	2								
Pennsylvania.....	42	254	.770						1	5	4	13	33	27	35	25	47	25	16	9	13	1			
Rhode Island.....	11	36	.636						1	3	5	3	6	5	8	3	1	1							
Tennessee.....	3	6	.667									1	2		2	1									
Texas.....	3	3	.657										1	1	1										
Washington.....	4	7	.784													4	2	1							
Wisconsin.....	11	87	.703							4	5	9	14	15	10	8	11	4	4	2	1				
Total.....	339	1,818	.742						5	10	32	70	125	221	254	288	227	218	133	85	63	77	7	2	1
<b>Screw-machine hands and operators, male:</b>																									
Alabama.....	2	4	.595								1	1		2		2	1	1							
California.....	3	7	.700								2	1						1							
Connecticut.....	9	69	.686						1		8	3	9	16	9	14	5	2	2						



Illinois.....	18	116	.740				1	3	3	7	13	11	8	14	13	19	6	4	7	4	1	2	
Indiana.....	4	11	.591					1		2	4	3		1									
Iowa.....	2	6	.503				2			1	3												
Kentucky.....	3	8	.461				1	3	2				1										
Maine.....	2	4	.562						2	2	1	1											
Massachusetts.....	26	115	.673						1	4	20	25	20	11	12		1				1		
Michigan.....	15	68	.731						4	6	6	4	3	7	10	16	7	1			4		
Missouri.....	4	7	.495					2		2	3												
New Hampshire.....	2	7	.679							2	2		3	1	1	1							
New Jersey.....	12	30	.660						1	3	4	8	5	2	1	2	3	1					
New York.....	14	170	.700					1	2	5	14	23	30	48	23	11	2	4	2	5			
Ohio.....	49	432	.661				2	6	18	32	66	69	84	68	47	15	14	5	2	4			
Pennsylvania.....	21	287	.644				1	8	14	22	29	31	22	37	53	28	23	9	6	1	3		
Rhode Island.....	11	62	.573					1	4	4	14	16	11	5	5	1	1	1					
Wisconsin.....	13	104	.617					1		7	13	19	34	11	10	4	4	1					
Total 1.....	213	1,520	.664				1	1	17	35	64	133	208	227	238	155	110	49	25	13	21	1	2
Toolmakers, male:																							
Alabama.....	2	8	.746										1	3	1	3							
California.....	15	56	.867										2	6	10	9	14		8	7			
Connecticut.....	18	115	.735								5	12	11	22	37	20	5		3				
Georgia.....	4	6	.717										2	3	1								
Illinois.....	24	300	.818							3	13	21	50	57	37	25	37	1	23	33			1
Indiana.....	13	77	.703							1	13	16	28	10	8								
Iowa.....	3	11	.642							1	1	7											
Kansas.....	2	2	.642					1									1						
Kentucky.....	6	12	.706							1	1	2	4	1	1					1			
Maine.....	4	16	.614							3	8	4	1										
Maryland.....	4	42	.701				1			1	1	16	9	12	2								
Massachusetts.....	35	283	.723							2	35	48	88	71	20	12	4	1	2				
Michigan.....	24	202	.809					1	1	2	11	16	16	30	38	39	28	10	9	1			
Minnesota.....	3	11	.668					1		1	2	2	3	1	1								
Missouri.....	12	27	.744							1	4	1	3	6	1	9				1			
New Hampshire.....	5	20	.805								1		2	6	4	5	1			1			
New Jersey.....	17	85	.789								2	7	21	15	11	16	7	1	5				
New York.....	20	407	.818							2	11	20	56	52	102	42	72	28	22				
Ohio.....	64	607	.726					2	23	39	105	85	82	97	67	47	34	18	5	3			
Oregon.....	2	3	.876											1						1			
Pennsylvania.....	38	276	.722				1	3	2	1	4	6	27	41	72	57	37	14	7	3	1		
Rhode Island.....	11	109	.708							2	10	17	21	18	14	17	8	1		1			
Tennessee.....	3	9	.723									1	4	2	1								
Texas.....	6	13	.712							1	1		3	2	2	2	2						
Washington.....	4	6	.837												4	1	1						
Wisconsin.....	14	159	.702					1		2	10	20	41	48	21	11	3	1					1
Total 2.....	354	2,863	.756				1	3	5	5	38	88	285	366	538	499	398	238	209	95	89	4	1

\* Including data for 1 establishment for which details are not shown.

\* Including data for 3 establishments for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State

## FOUNDRIES

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Estab-lish-ments	Em-ployees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Chippers and rough grinders, male:</b>																
Alabama.....	2	23	54.6								10		13			
California.....	21	101	46.6		38	9	49			5						
Colorado.....	3	40	45.3				9	3								
Connecticut.....	16	114	51.0	4	28	4	17		60		10		5	7		7
Georgia.....	4	38	57.5					8					3		27	
Illinois.....	24	293	48.6		1	113	82	12	7	10	60				8	
Indiana.....	13	166	51.5				61		53	11	11				30	
Iowa.....	11	70	53.3			10	11		2		28			5	11	3
Kansas.....	8	38	54.0								38					
Kentucky.....	5	20	51.8	1		5			7							
Louisiana.....	3	34	47.5		26									5	3	
Maine.....	3	24	52.0		4				-2		18					
Maryland.....	7	37	52.8			7	6				15				9	
Massachusetts.....	28	378	49.8			2	151		161	3	60		1			
Michigan.....	38	380	51.5	1		43	29	6	138	25	84		20		29	5
Minnesota.....	5	43	54.0					3		1	37				2	
Missouri.....	11	51	52.8				7	4			39					
New Hampshire.....	5	27	50.0				15		5		5		2			
New Jersey.....	17	250	51.5				77		72	31	50			3		17
New York.....	23	296	50.4			90	76		31		41		51		7	
Ohio.....	50	486	52.7		4 <sup>4</sup>	24	118	26	18	3	132		88		73	
Oregon.....	7	23	45.0		13	5	5									
Pennsylvania.....	38	470	51.8	5		11	98	4	83	22	95	52	96	3		
Rhode Island.....	8	120	51.8						65	43	12					
Tennessee.....	4	33	49.3				13		19		1					
Texas.....	5	22	52.3				2		11		6				3	
Washington.....	7	26	47.7		2	1	23									
Wisconsin.....	13	254	51.9						115	72	32		35			
<b>Total.....</b>	<b>379</b>	<b>3,857</b>	<b>51.1</b>	<b>11</b>	<b>117</b>	<b>324</b>	<b>849</b>	<b>58</b>	<b>857</b>	<b>226</b>	<b>784</b>	<b>52</b>	<b>315</b>	<b>23</b>	<b>216</b>	<b>25</b>
<b>Core makers, male:</b>																
Alabama.....	3	19	54.2							6	7		6			
California.....	21	117	45.6		69	10	35			3						
Colorado.....	3	20	45.8		11		9									
Connecticut.....	16	96	49.7	7	18	2	16		25		11		7	4	6	

Georgia.....	7	31	53.5						17		1		4	1	8	
Illinois.....	26	227	49.7	23	9	10	61	6	25	11	75				6	
Indiana.....	16	170	51.0			2	63		39		13	2			20	
Iowa.....	11	78	53.9	4		5	22		1	27	27		2		14	7
Kansas.....	8	15	54.0								15					
Kentucky.....	9	47.8		2		2			4						1	
Louisiana.....	6	14	50.0		8										2	
Maine.....	4	9	49.8		3				2		1		3			
Maryland.....	7	52	50.5			16	12				4					
Massachusetts.....	28	163	49.1			3	106	1	34		18				6	
Michigan.....	35	338	51.4	1		30	31	5	123	37	66	14			1	
Minnesota.....	5	51	53.2				2	6		2	41				31	
Missouri.....	12	63	50.9				30	4			26			3		
New Hampshire.....	7	9	49.7	1			3		2		2			1		
New Jersey.....	17	130	50.7				25		63	12	30					
New York.....	24	220	48.6	9		78	74		18		31	10				
Ohio.....	51	393	51.1	12	2	4	152	12	30		117	39			25	
Oregon.....	7	12	45.5		6	2	4									
Pennsylvania.....	38	512	50.4	7		7	212	6	118	5	33	32	79	13		
Rhode Island.....	8	52	51.2						35	6	11					
Tennessee.....	7	41	49.1				20		20		1					
Texas.....	9	26	50.4				9		7	8	2					
Washington.....	7	17	47.0		4	1	12									
Wisconsin.....	13	156	52.4						44	71	9	32				
Total.....	401	3,040	50.4	66	130	172	898	40	607	188	559	32	197	24	120	7
Core makers, female:																
Illinois.....	4	52	48.9				39		8		5					
Indiana.....	2	18	50.0						18							
Kentucky.....	2	5	47.0			3			2							
Massachusetts.....	2	3	48.0				3									
Michigan.....	7	55	51.3						37		18					
New Jersey.....	4	49	49.1				23		26							
New York.....	7	54	45.1	19		12	5	14	4							
Ohio.....	2	14	45.7		8		6									
Pennsylvania.....	3	29	48.5				22		7							
Rhode Island.....	2	7	50.9						5	2						
Wisconsin.....	4	31	46.9		20		1			10						
Total.....	41	324	48.4	19	28	15	99	18	107	12	26					
Laborers, male:																
Alabama.....	4	67	54.0				1			26	21		19			
California.....	20	258	48.4		112	20	83		1	15					1	26
Colorado.....	2	24	51.7				9			1	14					
Connecticut.....	16	490	53.4	25		2	33		199		63		42	25	89	12
Georgia.....	7	165	53.5						80		14		20	19	32	
Illinois.....	28	902	50.5	14	28	154	243	12	34	17	332	8			43	17
Indiana.....	15	839	51.5				250		332	59	51	15			130	2
Iowa.....	11	186	54.1			28	20		3		68			17	39	11

<sup>1</sup> Including data for 2 establishments for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Estab-lish-ments	Em-ployees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Laborers, male—Continued.</b>																
Kansas.....	6	28	53.7						2		26					
Kentucky.....	4	23	47.5	4		14			1						3	1
Louisiana.....	4	34	51.6		16						2			8		
Maine.....	3	39	53.0		8				3		19				9	
Maryland.....	7	135	53.1			17	17				79				22	
Massachusetts.....	28	695	50.7	2		4	255		239		162			3	22	8
Michigan.....	39	1,521	52.3	4		107	30	24	437	210	313		132	1	209	54
Minnesota.....	5	105	54.3					17			65		8		6	9
Missouri.....	12	145	51.8				46	9			88		2			
New Hampshire.....	6	31	47.4	7			12		9		3					
New Jersey.....	17	705	53.2				47		338	33	211			14	6	56
New York.....	25	741	52.0	2		114	169		83	23	127		65	24	104	30
Ohio.....	52	1,237	54.2	7	7	12	191	111	126	14	286		115	31	286	51
Oregon.....	7	53	45.3		26	12	15									
Pennsylvania.....	40	1,602	51.3	14	8	12	576	5	298	32	253	55	243	42	50	14
Rhode Island.....	8	193	52.2						106	42	26		12		1	6
Tennessee.....	7	87	50.0				17		61		9					
Texas.....	9	196	51.4				96		17	20	36				27	
Washington.....	6	55	47.1		12		43									
Wisconsin.....	13	461	53.5						142	145	16		117	14		27
<b>Total.....</b>	<b>401</b>	<b>11,017</b>	<b>52.1</b>	<b>79</b>	<b>217</b>	<b>496</b>	<b>2,153</b>	<b>178</b>	<b>2,511</b>	<b>637</b>	<b>2,284</b>	<b>55</b>	<b>798</b>	<b>198</b>	<b>1,087</b>	<b>324</b>
<b>Molders, hand, bench, male:</b>																
California.....	18	60	45.5		39	4	14			3						
Connecticut.....	13	111	54.2	5	6	4	4		7		41		5	7	32	
Georgia.....	4	34	56.0			5			7						21	
Illinois.....	22	134	49.9	4	9	18	39	4	1	11	43				5	
Indiana.....	14	109	50.8	1			40		35	12	2		3		13	
Iowa.....	7	53	53.8			10			1		28				14	
Kansas.....	6	8	53.5								7					
Kentucky.....	5	11	49.1	3		2			3						3	
Louisiana.....	2	4	52.0		2										2	
Maine.....	4	12	52.2		1				3		8					
Maryland.....	6	31	53.4			2	5			19					5	
Massachusetts.....	27	295	49.0			77	100		44		73				1	

Michigan.....	35	294	49.7	2	100	37	5	30	12	97	4	7			
Minnesota.....	4	36	53.4				5			31					
Missouri.....	6	18	52.2			2	3		2	11					
New Hampshire.....	6	25	51.7	1		3		7		11	3				
New Jersey.....	15	73	49.4		3	29		29	10	2					
New York.....	20	157	50.3		29	57		3		29	39				
Ohio.....	43	237	49.1	29	3	69	21	61		39	3	9			
Oregon.....	5	8	45.7		3	2									
Pennsylvania.....	28	185	52.0	6	11	36	3	43	1	16	33	36			
Rhode Island.....	8	57	50.7				1	44	5	7					
Tennessee.....	4	34	49.3			12		22							
Texas.....	6	15	51.6			4			8	3					
Washington.....	4	11	46.5	4		7									
Wisconsin.....	11	50	52.5					13	26	4	7				
Total .....	324	2,063	50.5	51	67	273	462	42	354	90	471	98	43	112	
Molders, hand, floor, male:															
Alabama.....	4	53	54.1			1			17	16		19			
California.....	19	205	45.5		123	18	59		5						
Colorado.....	3	49	45.5		31	18									
Connecticut.....	16	244	49.4	4	39	6	77		55	41	16	4	2		
Georgia.....	7	68	53.4			10			23	2	6	12	15		
Illinois.....	28	361	47.3	81	15	82	58	18	12	72	7		15		
Indiana.....	15	288	50.9	4		7	83		66	88	8	22	10		
Iowa.....	11	130	52.4			8	53		5	29		1	34		
Kansas.....	9	44	53.8						2	42					
Kentucky.....	7	35	49.3	5		8	2		13				7		
Louisiana.....	5	41	50.3		23					2		9	7		
Maine.....	4	35	47.8		16				14	5					
Maryland.....	7	96	50.2			24	32			19			14		
Massachusetts.....	27	367	48.4			64	210		68	19			6		
Michigan.....	33	417	51.2	5	58	94	13	47	46	87	10		57		
Minnesota.....	4	45	52.4			6	8			31					
Missouri.....	12	146	50.5			73	10		7	52	4				
New Hampshire.....	8	49	49.1	7		13			17	8	4				
New Jersey.....	16	262	50.4			12	55		122	10	63				
New York.....	25	326	49.2	18		56	132		5	112	3				
Ohio.....	51	832	50.7	18	7	12	327	78	52	242	71		25		
Oregon.....	7	38	45.6		16	8	14								
Pennsylvania.....	40	739	50.6	7	6	37	209	9	217	14	65	39	111	25	
Rhode Island.....	8	106	50.7						86	10	10				
Tennessee.....	7	87	49.4				35		47	5					
Texas.....	10	69	50.3			29		15	13	12					
Washington.....	7	67	46.9		17	4	46								
Wisconsin.....	12	176	49.9						34	105	16		21		
Total .....	402	5,375	49.9	149	293	414	1,633	136	900	316	958	39	294	51	192

Including data for 1 establishment for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Estab-lish-ments	Em-ployees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Molders, machine, male:</b>																
California.....	6	16	49.7		2	1	5			8						
Colorado.....	2	4	45.0		3		1									
Connecticut.....	8	111	54.5	10	2		2				46		1	45		
Georgia.....	2	17	54.1						5						7	
Illinois.....	13	217	50.5			22	83	9		14	85		4			
Indiana.....	12	236	50.1	17			71		191	10	25				22	
Iowa.....	7	68	50.6			24	7			10	29			6	2	
Kansas.....	2	6	54.0								6					
Kentucky.....	3	12	44.6	5		3			4							
Maryland.....	4	29	53.6			4				21					4	
Massachusetts.....	23	325	48.5			49	182		67	27						
Michigan.....	21	456	51.0			26	12	5	265	12	102		26		8	
Minnesota.....	3	25	53.1					5			20					
Missouri.....	3	28	54.0								28					
New Hampshire.....	2	19	49.9				13				6					
New Jersey.....	15	220	52.5				13		109	11	58					29
New York.....	17	312	47.5	33		102	89		36		46					
Ohio.....	25	247	50.1	45	1	1	39	15	27		90			14	15	
Pennsylvania.....	26	214	49.7	17		3	82	9	43	2	17	5	24	12		
Rhode Island.....	7	101	51.8						41	44	16					
Tennessee.....	2	7	49.4				2		5							
Texas.....	3	19	50.2				4		12		3					
Wisconsin.....	11	288	51.3						192	42	4		50			
<b>Total<sup>1</sup></b> .....	<b>220</b>	<b>3,102</b>	<b>50.4</b>	<b>127</b>	<b>11</b>	<b>235</b>	<b>605</b>	<b>43</b>	<b>1,001</b>	<b>143</b>	<b>651</b>	<b>5</b>	<b>131</b>	<b>63</b>	<b>58</b>	<b>29</b>
<b>Molders' helpers, floor, male:</b>																
Alabama.....	4	62	54.0				1			24	19		18			
California.....	11	53	46.0		31	7	10			5						
Colorado.....	3	59	48.3		27			13			19					
Connecticut.....	12	82	50.0	1		3	31		30		6			2		
Georgia.....	5	51	54.6						12		6				9	
Illinois.....	17	102	50.5	10	6	14	4	16			38				10	
Indiana.....	10	103	49.3			12	40		38	2	1		9		1	
Iowa.....	7	24	52.0			1	7				13			1		
Kansas.....	8	46	53.8						2		44					

Kentucky.....	7	20	47.4	6		2	1		9			1			2	
Louisiana.....	5	52	48.8		35							5		7		
Maryland.....	4	21	50.0			8	5								3	
Massachusetts.....	20	98	52.2			8	41		18	1		25			3	
Michigan.....	12	108	51.4			11	10	5	24	34		7		1	17	1
Minnesota.....	3	30	53.4					4		2		24				
Missouri.....	9	99	53.0				16	2				76	5			
New Jersey.....	9	106	52.7				9		34	2		57				4
New York.....	17	80	50.8	3		8	26		11			26			6	
Ohio.....	24	207	52.8		2		70	12	10	8		54	19		17	15
Oregon.....	5	16	45.6		7	3	6									
Pennsylvania.....	24	224	51.1		3	5	66		54	9	16	31	30	10		
Rhode Island.....	4	10	50.6						8	2						
Tennessee.....	6	66	48.8				40		25		1					
Texas.....	8	38	51.6				11		13	3	6				5	
Washington.....	5	22	47.0		5	2	15									
Wisconsin.....	7	38	52.4						5	29			4			
Total <sup>2</sup> .....	247	1,820	51.2	20	116	84	409	52	296	121	446	31	122	21	76	26
Pattern makers, male:																
Alabama.....	3	17	54.0							4	11		2			
California.....	11	33	45.7	19		14										
Colorado.....	2	4	44.0	4												
Connecticut.....	4	18	55.6					2			9			6	1	
Georgia.....	4	15	57.6					2			1		2		10	
Illinois.....	12	139	48.8	12			92	5	13		12					5
Indiana.....	10	89	50.1				28		47	9			3		2	
Iowa.....	8	17	51.6			2	3		3		4		3	2		
Kansas.....	8	11	52.9		2				1		6				2	
Louisiana.....	2	3	49.3		2										1	
Maine.....	3	14	47.9		5				9							
Maryland.....	7	20	48.9			6	8				6					
Massachusetts.....	22	154	48.8		3	10	57		83		1					
Michigan.....	29	139	51.4	1		6	8	8	61	16	11		18		10	
Minnesota.....	5	25	49.7					24					1			
Missouri.....	7	35	46.5			27	3				3		1			
New Hampshire.....	2	8	50.0						8							
New Jersey.....	13	137	50.1				24		93	11	9					
New York.....	20	115	50.0			31	13		38		11		13	9		
Ohio.....	30	178	50.8		2		3	16	54		5		30	14		
Oregon.....	2	8	46.5		3		5									
Pennsylvania.....	30	161	51.0	3	2	3	28	3	55	11	18	14	19	5		
Rhode Island.....	3	11	51.0						6	5						
Tennessee.....	5	13	49.5				5		7		1					
Texas.....	4	6	51.3				2		1		3					
Washington.....	2	7	45.1		5		2									
Wisconsin.....	10	132	52.3						17	108			7			
Total <sup>2</sup> .....	259	1,512	50.3	4	59	88	346	56	503	165	111	14	99	36	26	5

<sup>2</sup> Including data for 1 establishment for which details are not shown.<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Establishments	Employees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Assemblers, male:</b>																
Alabama.....	2	22	54.9								2		20			
California.....	14	146	45.9		60	21	61	4								
Connecticut.....	18	324	51.1				64		169		13		71		7	
Georgia.....	2	7	53.6							4			3			
Illinois.....	31	860	50.4		38	10	116	105	325	166	27		64		9	
Indiana.....	14	325	51.6						159	142			16		8	
Iowa.....	9	89	51.9		4	5	1		27		6		44			2
Kansas.....	3	40	49.9				32		2						6	
Kentucky.....	6	76	48.0		6	9	34		27							
Louisiana.....	2	2	59.0											1	1	
Maine.....	3	22	47.8		8				14							
Maryland.....	5	41	48.0			8	18		15							
Massachusetts.....	9	241	48.4				193		48							
Michigan.....	24	504	51.0				115	4	194	109	14		46		22	
Minnesota.....	5	68	50.0					62					6			
Missouri.....	15	134	52.0				26	14	16	1	58		19			
New Hampshire.....	4	16	50.0						16							
New Jersey.....	26	480	49.1		2		211	2	253	11	1					
New York.....	22	976	48.3		13	412	399		91	7	24		30			
Ohio.....	72	1,718	49.7		2	161	478	243	509	203	17	6	99			
Oregon.....	5	30	45.2		21		9									
Pennsylvania.....	42	1,187	51.3			7	292	43	363	106	58	7	168	128	11	4
Rhode Island.....	10	143	50.5						104	39						
Tennessee.....	2	30	48.0				30				26					
Texas.....	5	67	51.3				8		33							
Washington.....	4	34	47.6		1	10	23						62			2
Wisconsin.....	14	437	52.1						140	233						
<b>Total.....</b>	<b>368</b>	<b>8,919</b>	<b>50.1</b>		<b>155</b>	<b>643</b>	<b>2,110</b>	<b>477</b>	<b>2,505</b>	<b>1,021</b>	<b>246</b>	<b>13</b>	<b>648</b>	<b>129</b>	<b>64</b>	<b>8</b>
<b>Boring-mill hands and operators, male:</b>																
Alabama.....	2	14	54.6								5		9			
California.....	15	63	45.8		29	7	25	2								
Connecticut.....	16	109	50.8				14		76				16		1	2
Georgia.....	4	7	53.9						1	3			2		1	
Illinois.....	30	283	50.0		43	2	28	56	53	13	21		26		11	
Indiana.....	9	130	51.9			1			11	15			2		1	
Iowa.....	3	19	53.0				2		6				10			1



Kansas	3	6	51.0			4				1			1	
Kentucky	4	8	45.8	4	2			2						
Louisiana	3	6	51.3									2	1	
Maine	3	10	46.4	6				4						
Maryland	3	4	48.5			3		1						
Massachusetts	27	110	48.4	10	12	34		50	3			1		
Michigan	15	84	51.9			8		31	11	13		12		4
Minnesota	3	15	49.5					15						
Missouri	11	52	50.5				26	5		1	18	2		
New Hampshire	4	6	50.3			3		1			2			
New Jersey	25	119	49.4	2		31	1	84		1				
New York	21	208	49.2		34	109		39	4	4		14	4	
Ohio	74	514	51.4	5	62	96	57	80	69	25	9	62	7	25
Oregon	4	12	44.3	11		1								17
Pennsylvania	42	334	51.8		3	64	15	117	23	28	9	44	9	17
Rhode Island	9	33	50.7					18	15					5
Tennessee	2	8	48.5			6		2						
Texas	5	6	51.0			1		3		2				
Washington	3	15	47.8		5	10								
Wisconsin	14	163	53.2					39	95			12	5	12
Total	354	2,208	50.7	113	128	465	156	618	252	120	18	212	23	66

## Drill-press hands and operators, male:

Alabama	2	26	54.9							3		23		
California	18	115	45.5											
Connecticut	17	155	51.2	67	7	37	4			19		26		
Georgia	3	12	52.3					4	5			3		
Illinois	34	733	48.7	223	6	70	45	255	71	16		33	14	
Indiana	14	168	51.0	3	10			103	36			5	11	
Iowa	7	78	53.3	1	3	2		23		1		41	5	2
Kansas	6	15	51.7			4		4		6			1	
Kentucky	7	21	46.3	4	9	4		4						
Louisiana	2	5	59.6											
Maine	2	22	48.1	7				15					1	4
Maryland	5	51	48.6			36		15						
Massachusetts	37	349	49.3	7	9	118		192	9			13		1
Michigan	29	327	51.2			34	6	203	9	4	2	56		13
Minnesota	5	35	50.2				31					3	1	
Missouri	17	89	51.6			22	14	7	1	35		10		
New Hampshire	7	22	48.9			14		7		1				
New Jersey	28	205	49.6	1		43	1	154	4	2				
New York	23	413	48.7	3	82	233		63	12	7		10		3
Ohio	79	755	50.5	1	58	176	100	216	89	25		66		13
Oregon	6	18	45.3	12		6								11
Pennsylvania	43	682	51.2		7	178	23	238	31	33	2	92	58	17
Rhode Island	12	109	50.4					83	26					3
Tennessee	4	26	48.5			20		6						
Texas	6	29	48.6		14	3		10		2				
Washington	5	24	47.3	2	9	13								
Wisconsin	15	275	53.1					69	159			22	5	20
Total	433	4,759	50.1	331	214	1,024	224	1,770	452	154	4	403	65	82

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Establishments	Employees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Fitters and bench hands, male:</b>																
Alabama.....	2	12	54.6								5		7			
California.....	17	197	45.3		136	1	51	9							2	
Connecticut.....	11	277	50.9						225		26		24			
Georgia.....	2	19	59.7										1		18	
Illinois.....	24	562	49.3		124		133	48	93	65	19		74		6	
Indiana.....	10	131	48.8		7	45			55	7			16		1	
Iowa.....	4	38	52.9		4		3		3				28			
Kansas.....	4	12	54.2		1						9				2	
Kentucky.....	5	29	47.5		13	1	6		6					3		
Maine.....	2	63	44.8		55				8							
Massachusetts.....	35	1,100	47.4		18	51	303		603	99	15		10			1
Michigan.....	25	489	50.7				47	16	294	96			22		14	
Minnesota.....	5	12	49.5					12								
Missouri.....	10	64	53.3				6	2			54		2			
New Hampshire.....	5	72	48.2				64		8							
New Jersey.....	25	378	49.3		2		123	2	241	10						
New York.....	20	922	48.4		3	66	750		44	30			16			
Ohio.....	62	856	50.0		1	55	251	190	141	75	70		68	4		1
Oregon.....	3	8	44.5		7		1									
Pennsylvania.....	33	952	51.7			17	265	60	210	24	27	1	98	227	18	5
Rhode Island.....	6	114	50.4						87	27						
Tennessee.....	3	20	42.0				10		10							
Texas.....	2	6	53.0				1				5					
Washington.....	3	31	47.5			17	14									
Wisconsin.....	13	293	52.6						47	194			52			
Total <sup>1</sup> .....	332	6,661	49.5		371	253	2,032	339	2,075	610	260	1	418	234	61	7
<b>Grinding-machine hands and operators, male:</b>																
California.....	10	47	50.8		13	2	16	13							3	
Connecticut.....	15	122	51.4				3		84		4		30		1	
Georgia.....	2	5	51.0						4				1			
Illinois.....	24	412	49.5		72	19	41	21	138	72	22		25		2	
Indiana.....	11	93	50.4			2			74	16			1			
Iowa.....	5	38	53.2			1	1		14		2		16		2	

Kansas.....	2	3	49.8			2		1									
Kentucky.....	3	4	47.0		2	1		1									
Maine.....	2	8	50.0					8									
Maryland.....	2	17	52.5			6											
Massachusetts.....	34	185	49.7	12	3	56		78	15			11					
Michigan.....	21	173	50.8			9	26	83	35	1	15	21					1
Minnesota.....	2	14	49.9				13					1					
Missouri.....	10	27	53.1			4	1	1		14		7					
New Hampshire.....	3	13	48.3			11		2									
New Jersey.....	15	84	49.0			44		37	3								
New York.....	15	185	48.3	1	36	123		15	6	4							
Ohio.....	61	390	50.1		11	101	120	85	25	6		29	1	12			
Pennsylvania.....	31	217	50.0		1	103	8	51	20	5	1	14	12	2			
Rhode Island.....	9	129	50.3					110	19								
Washington.....	2	8	47.4		5	3											
Wisconsin.....	14	98	52.5					30	40			28					
Total.....	298	2,285	50.1	102	82	526	202	816	252	58	16	189	13	26			3
Laborers, male:																	
Alabama.....	6	53	54.5			4		2	3	17		26					1
California.....	21	194	45.9	89	29	46	25		1	1		2					1
Connecticut.....	16	202	50.9			9		154		8		30					1
Georgia.....	8	71	53.5					28	6	1		3	26	7			
Illinois.....	32	1,009	49.9	127	16	173	55	395	96	21		93		32			1
Indiana.....	15	319	51.2	6	8			204	62			20		19			
Iowa.....	9	75	53.5	3		1		23		2		37		7			2
Kansas.....	5	26	53.6	1		2				21				2			
Kentucky.....	5	25	46.1	3	15	2		5									
Louisiana.....	4	40	54.9	10						2			17	11			
Maine.....	4	33	48.4	9				24									
Maryland.....	6	58	49.6			43		2				13					
Massachusetts.....	36	841	49.7	6	17	170		601	24	6		13		3			1
Michigan.....	32	672	51.3			84	13	351	67	37	23	71	2	17			7
Minnesota.....	5	103	49.8				97					6					
Missouri.....	16	158	52.2			33	17	1	7	89		11					
New Hampshire.....	8	43	50.3			12		22		9							
New Jersey.....	29	373	49.8			108		233	18	3			10				1
New York.....	23	871	48.6	6	164	534		94	13	32		26		2			
Ohio.....	80	1,225	50.6		67	292	260	248	110	75		133	7	17			16
Oregon.....	3	21	46.2	13		6				1							
Pennsylvania.....	44	1,182	51.6		19	288	16	335	47	122	10	199	130	12			4
Rhode Island.....	12	121	51.0					73	39				9				
Tennessee.....	8	81	49.3			58		16		2				5			
Texas.....	12	136	50.4		19	36		53		49							
Washington.....	6	38	47.5	4	3	31											
Wisconsin.....	14	351	52.3					101	210			29		9			2
Total.....	459	8,342	50.4	277	357	1,932	483	2,965	703	498	33	712	202	143			37

<sup>1</sup> Including data for 1 establishment for which details are not shown.<sup>4</sup> Including data for 5 establishments for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		A ver- age full- time hours per week	Number of employees whose full-time hours per week were—												
	Estab- lish- ments	Em- ployees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
Lathe hands and operators, engine, male:																
Alabama	2	22	54.6							9		13				
California	16	219	45.5		131	11	65	12							3	1
Connecticut	19	232	51.1				23		149		14		42			
Georgia	4	17	53.7						3	7			5		2	
Illinois	33	865	49.9		135	2	55	67	388	71	92		43		11	1
Indiana	10	183	49.7		12	33			87	34			15		2	
Iowa	7	48	52.4			1	6		17		3		18		1	2
Kansas	7	40	50.3		10		9		5		12				4	
Kentucky	7	46	47.7		10	10	13		9							
Louisiana	3	19	56.7		4									4	7	1
Maine	3	56	47.4		24											
Maryland	4	31	48.3				27		32							
Massachusetts	36	648	49.2		45	15	223		4							
Michigan	21	278	51.5				49	25	295	31			39			
Minnesota	5	53	51.4					38	92	49		6	33		24	
Missouri	16	159	51.0				66	15	3	1	70		8	7		
New Hampshire	6	54	50.6				16		22		16		4			
New Jersey	26	252	49.5		4		69	1	165	12	1					
New York	22	438	49.2		4	94	200		74	6	11		47		2	
Ohio	80	1,014	50.7		3	111	201	201	154	134	63		106	11	16	14
Oregon	5	26	45.4		17		9									
Pennsylvania	44	727	51.4			6	160	15	276	48	54	10	104	30	16	8
Rhode Island	11	125	50.4						95	30						
Tennessee	3	40	48.8				25		15							
Texas	6	66	49.3			27	13		10		16					
Washington	4	40	47.1		6	17	17									
Wisconsin	14	266	53.5						39	174			25	8		20
Total	414	5,964	50.2		405	327	1,246	374	1,934	597	361	16	502	67	88	47
Lathe hands and operators, turret, male:																
California	15	96	45.8		51	8	22	14							1	
Connecticut	16	91	51.4				13		46		9		23			
Georgia	3	6	56.7							2			1		3	
Illinois	23	432	49.3		101		170	18	20	37	21		15		41	
Indiana	6	80	51.9			1			48	18			4		9	
Iowa	5	38	53.7			3	1		8				21		3	2
Kansas	2	5	55.2								4				1	

Kentucky	6	42	47.2	1	25	1	13					2		
Louisiana	2	2	59.0									1	1	
Maine	2	16	48.5	4			12							
Maryland	3	11	48.5			8	3							
Massachusetts	30	254	49.1	2	11	119	93	25			3			1
Michigan	25	383	50.6			8	316	3			52			
Minnesota	3	9	49.5				9							
Missouri	11	40	51.6			14	1			22				
New Hampshire	7	23	49.1			14	7			2		1		
New Jersey	25	134	49.5			45	79	9		1				
New York	20	230	49.2	3	36	79	90	6		7		8	1	
Ohio	60	448	50.4	2	28	127	74	103	34	11		48	6	13
Oregon	3	9	45.8	5		4								2
Pennsylvania	40	569	50.1		4	262	7	166	27	13	5	54	24	7
Rhode Island	11	33	50.7			8		21	12					
Tennessee	3	10	48.4					2						
Texas	6	41	48.6		11	18		9		3				
Washington	4	21	47.3	1	11	9								
Wisconsin	11	137	53.0				16	102				13		6
Total <sup>1</sup>	343	3,167	50.0	170	138	931	127	1,054	275	93	5	250	33	80
Machinists, male:														11
Alabama	5	45	52.3			6	9	16	12			2		
California	24	239	45.2											
Connecticut	13	198	50.7	166	3	59	11					41		
Georgia	8	67	54.7			39		115		3				
Illinois	28	356	48.5					22	1	6		5	15	18
Indiana	12	147	51.7	113	23	13	1	115	70	9		9		3
Iowa	8	40	51.0			8		99	17					22
Kansas	5	28	52.7	2		5		23		1		7		2
Kentucky	5	24	47.7							18				1
Louisiana	5	58	45.1		11			13						
Maine	4	41	49.7	49	4					3			2	
Maryland	7	186	47.9					39						
Massachusetts	27	410	47.5		16	140		22				3		
Michigan	25	234	52.0	133	8	92		158	13			5		1
Minnesota	6	27	49.7		7	11		110	19	19	7	6		36
Missouri	13	123	48.6	15		74	26					1		
New Hampshire	8	117	51.5			30	8		7	12		2		
New Jersey	31	185	49.7					28		59				
New York	19	150	49.6					51	45	1				
Ohio	56	278	50.6	2	10	57	5	59	2	18		2		
Oregon	6	27	47.1		22	53	74	25	49	15		37		2
Pennsylvania	31	296	50.7	6		21								
Rhode Island	13	168	50.2		8	129	9	74	8	11	1	38	9	1
Tennessee	8	79	49.8					153	15					8
Texas	9	73	48.9			29		39		11				
Washington	7	61	45.6		24	35				14				
Wisconsin	12	137	51.8	37	1	23								
Total	395	3,794	49.5	536	137	906	153	1,222	324	212	8	170	30	83

<sup>1</sup> Including data for 1 establishment for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Estab-lish-ments	Em-ployees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Machinists' and toolmakers' helpers, male:</b>																
Alabama.....	3	14	53.2				3			3			8			
California.....	20	94	45.7		56	1	28	8		1						
Connecticut.....	9	162	51.0				22		96		21		23			
Georgia.....	4	7	52.7						3	2	1				1	
Illinois.....	17	146	48.0		70	2			37	20	2		15			
Indiana.....	6	22	51.5			1			7	14						
Iowa.....	5	11	52.1				1		5				5			
Kansas.....	8	56	51.9		18					3	24				11	
Kentucky.....	2	4	47.0			2			2							
Louisiana.....	2	24	44.0		24											
Maine.....	3	9	48.0		3				6							
Maryland.....	6	53	48.1		1	3	38		11							
Massachusetts.....	12	77	49.2			2	26	1	48							
Michigan.....	11	57	49.4			2	14	14	21	6						
Missouri.....	11	28	51.1		3		7	2		3	10		3			
New Jersey.....	23	73	49.5		2		28	2	29	11	1					
New York.....	21	96	50.2			9	37		26	1	6		17			
Ohio.....	34	209	51.2			10	29	16	64	31	23	4	31			1
Oregon.....	5	14	46.6		5		9									
Pennsylvania.....	26	159	51.4				59		52		4		32	8		4
Rhode Island.....	9	71	50.1						65	6						
Tennessee.....	4	15	49.5				10		2		3					
Texas.....	8	41	48.8			11	23				7					
Washington.....	5	18	45.6		10	3	5									
Wisconsin.....	13	205	52.6						64	104			29			8
Total <sup>1</sup> .....	269	1,671	50.1		194	44	339	45	538	205	106	4	163	8	12	13
<b>Milling-machine hands and operators, male:</b>																
Alabama.....	2	6	54.8								1		5			
California.....	13	57	45.4		35	3	14	5								
Connecticut.....	16	147	51.5				8		90		9		39		1	
Illinois.....	25	375	49.3		99	2	42	24	80	71	19		36		2	
Indiana.....	13	*71	51.3		1	5			30	27			6		2	
Iowa.....	3	23	53.7				1		8				11		1	2
Kentucky.....	5	12	47.5		1	2	7		2							

Louisiana.....	2	2	59.0										1	1	
Maine.....	3	18	48.7		4			14							
Maryland.....	3	13	48.2			12		1							
Massachusetts.....	33	343	47.9	93	11	86		110	34						
Michigan.....	22	124	50.9			14	8	73	12		2	9		7	
Minnesota.....	3	13	50.1				12						1		
Missouri.....	10	22	52.3			4	2	1		14		1			
New Hampshire.....	7	36	48.7			25		10		1					
New Jersey.....	21	78	49.2			33		45							
New York.....	19	401	48.2	3	119	230		36	6	7					
Ohio.....	70	536	50.0	1	24	155	126	113	47	10		45	1	13	1
Pennsylvania.....	39	360	50.5			138	19	82	36	14	1	35	33	2	
Rhode Island.....	9	91	50.5					66	25						
Tennessee.....	2	8	49.3			3		5							
Texas.....	2	4	52.0					2		2					
Washington.....	3	10	47.3		7	3									
Wisconsin.....	15	117	53.1					32	57			20			8
Total <sup>1</sup> .....	343	2,872	49.7	241	173	775	196	800	316	77	3	215	36	29	11
Pattern makers, male:															
California.....	11	44	45.1	27	5	12									
Connecticut.....	12	96	50.2			6		83		4		3			
Georgia.....	3	9	53.5					3			3	3			
Illinois.....	25	149	49.8	31	1	15	19	29	21	12		21			
Indiana.....	7	17	49.9	1	5			6	3					2	
Kentucky.....	3	4	48.5	2		1							1		
Louisiana.....	3	5	49.6	3									2		
Maryland.....	3	6	49.2			5						1			
Massachusetts.....	16	57	49.8	2		14		34	3			4			
Michigan.....	7	11	50.5			2		5	4						
Missouri.....	7	15	52.7				4		1	9		1			
New Hampshire.....	5	7	50.9			3				3					
New Jersey.....	17	77	48.4	4	8	38		24	3						
New York.....	11	140	44.7	3	38	92						7			
Ohio.....	43	191	50.5	1	8	52	21	38	40	12		18	1		
Oregon.....	3	7	45.1	5		2									
Pennsylvania.....	29	204	51.7		6	61	1	41	2	11		44	38		
Rhode Island.....	10	57	50.3					48	9						
Tennessee.....	3	7	48.3			6		1							
Texas.....	4	11	49.6			6		3		2					
Washington.....	4	17	47.8		4	13									
Wisconsin.....	8	95	52.4					15	68			12			
Total <sup>2</sup> .....	235	1,228	49.6	79	75	328	45	333	154	53	3	114	42	2	

<sup>1</sup> Including 2 establishments in which details are not shown.<sup>2</sup> Including data for 1 establishment for which details are not shown.<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE C.—Average and classified full-time hours per week in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average full-time hours per week	Number of employees whose full-time hours per week were—												
	Estab-lish-ments	Em-ployees		Under 44	44	Over 44 and under 48	48	Over 48 and under 50	50	Over 50 and under 54	54	Over 54 and under 55	55	Over 55 and under 60	60	Over 60
<b>Planer hands and operators, male:</b>																
Alabama.....	2	6	54.3								4		2			
California.....	14	41	46.0		18	3	18	2								
Connecticut.....	17	148	51.0				5		116		11		13			3
Georgia.....	2	10	55.5										1	9		
Illinois.....	23	135	49.1		41		8	16	33	26	1		4		6	
Indiana.....	9	34	49.8		4	7			7	11			5			
Iowa.....	4	6	51.3				1		3				2			
Kansas.....	6	6	52.6		1				1	1	2				1	
Kentucky.....	4	13	46.9		2	2	9									
Maine.....	3	12	48.0		4				8							
Maryland.....	2	8	49.0				4		4							
Massachusetts.....	31	177	48.8		11	9	60		89	4			4			
Michigan.....	12	46	51.0				15	6	10	5			6		4	
Minnesota.....	5	9	50.1					8					1			
Missouri.....	10	48	50.6				28	1			11		8			
New Hampshire.....	5	12	50.3						11	1						
New Jersey.....	23	71	48.8		2		39	1	26	3						
New York.....	21	174	49.5			27	97		24		9		7		10	
Ohio.....	68	462	51.0		2	47	105	52	97	49	43	5	27	3	17	15
Oregon.....	3	4	45.0		3		1									
Pennsylvania.....	42	254	52.5			6	42		69	8	44	6	40	25	11	3
Rhode Island.....	11	36	50.4						28	8						
Tennessee.....	3	6	49.0				3		3							
Texas.....	3	3	49.3				1		2							
Washington.....	4	7	47.2		1	2	4									
Wisconsin.....	11	87	52.4						28	48			8			3
Total <sup>1</sup> .....	339	1,818	50.5		92	103	440	86	559	163	126	11	128	37	49	24
<b>Screw-machine hands and operators, male:</b>																
Alabama.....	2	4	54.8								1		3			
California.....	3	7	46.9		1	2		4								
Connecticut.....	9	69	51.9				8		31				30			
Illinois.....	18	116	48.7		41		11	14	15	26	2		4		3	
Indiana.....	4	11	50.9						7	4						
Iowa.....	2	6	56.0						1				3		1	



Kentucky	3	8	46.6			5	1		2								
Maine	2	4	50.0						4								
Massachusetts	26	115	49.5	1			46		47	19			2				
Michigan	15	68	50.3				7		46	13			2				
Missouri	4	7	51.6					1	3		3						
New Hampshire	2	7	48.3						1								
New Jersey	12	30	49.8				6		24	2							
New York	14	170	48.0			56	104		6	2	1		1				
Ohio	49	432	50.0			26	63	233	46	32			11	2	19		
Pennsylvania	21	287	49.4				157	14	85	2	6		7	14	2		
Rhode Island	11	62	50.3						50	12							
Wisconsin	13	104	52.5						31	57			13				3
Total <sup>1</sup>	213	1,520	49.8		43	89	416	269	399	169	13		76	17	25		4
<b>Toolmakers, male:</b>																	
Alabama	2	8	54.9								1		7				
California	15	56	46.0		26	5	16	9									
Connecticut	18	115	50.4				8		94		2		11				
Georgia	4	6	53.3						2				1				
Illinois	24	300	50.2		9		73	50	80	60	13		12			1	
Indiana	13	77	50.5			8			51	13			1			3	
Iowa	3	11	51.7				1		7				2			4	
Kansas	2	2	52.0		1												1
Kentucky	6	12	46.6		2	5	2		3							1	
Maine	4	16	48.1		5				11								
Maryland	4	42	48.0				41		1								
Massachusetts	35	283	48.8						116	15			9				
Michigan	24	202	50.8		32	6	105		135	35	2	1	8			7	
Minnesota	3	11	50.5				14	9					2				
Missouri	12	27	50.4				14	1	2	1	8		1				
New Hampshire	5	20	49.2						3		3						
New Jersey	17	85	49.3				34		44	6	1						
New York	20	407	48.2		3	90	265		34	3	8		4				
Ohio	64	607	49.4		1	30	238	127	137	46	3		18	3	4		
Oregon	2	3	44.0		3												
Pennsylvania	38	276	51.2			2	79	15	75	10	12	2	35	46			
Rhode Island	11	109	50.4						86	23							
Tennessee	3	9	49.1				4		5								
Texas	6	13	49.4			4	2		5								
Washington	4	6	47.2		1	1	4			2							
Wisconsin	14	159	52.5						29	105			24				1
Total <sup>2</sup>	354	2,863	49.7		83	151	914	211	920	319	55	3	135	49	21		2

<sup>1</sup> Including data for 1 establishment for which details are not shown.<sup>2</sup> Including data for 3 establishments for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State

## FOUNDRIES

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Chippers and rough grinders, male:																							
Alabama.....	2	23	56.6	1		1	1							2			1	1	16				
California.....	21	101	44.3	1		3	9	6	13	18	17	17	8	8			1						
Colorado.....	3	40	47.7		1	1	6							15	5		2	1	1				
Connecticut.....	16	114	48.3		2	5	7	4	9	2	16	4	1	17	24	3	12	2	4		2		
Georgia.....	4	38	48.3	2					1		21		2		3		7						
Illinois.....	24	293	45.2	5	5	18	54	7	28	3	41	5	7	12	24	57	14	9	11	2			
Indiana.....	13	166	46.7	5	2	9	15	2	15	2	36	6	12	3	14	1	15	19			1		
Iowa.....	11	70	49.7	1	2	3	3	2	2	1	10	3	1	1	2	14	15	2	8				
Kansas.....	8	38	48.3	1	2	4	1		1		3					18	4	1	3				
Kentucky.....	5	20	49.8	2					1				1	2	5		3	2	4				
Louisiana.....	3	34	43.4	1			4	9	6	6					1	2	3	1	1				
Maine.....	3	24	45.9			1	2	5			13			4	1		1		1				
Maryland.....	7	37	45.5			1	2	5			5			8	1	5	2	2	2				
Massachusetts.....	28	378	47.2		6	3	25	50	25	1	45	39	7	84	27	22	32	3	7		1		1
Michigan.....	38	380	44.4	10	11	26	72	2	20	3	81	14	11	25	15	5	47	6	29	2	1		
Minnesota.....	5	43	50.3	1			2		2	1	5			1	16	13	1		2				
Missouri.....	11	51	48.3		1	2	5				8		2	1	18	6	5						
New Hampshire.....	5	27	48.0			2	1				1	9		6	3		4		1				
New Jersey.....	17	250	44.9		4	19	37	18	10	22	30	11	7	13	28	9	29	4	9				
New York.....	23	296	48.8	4	2	5	30	1	33	4	45	26	15	6	20	21	47	7	30				
Ohio.....	50	486	46.7	13	7	21	59	12	24	16	62	24	22	33	69	24	58	26	9	1	4		2
Oregon.....	7	23	40.9	1			11	1			8												
Pennsylvania.....	38	470	46.2	9	7	20	41	16	45	5	109	8	7	30	29	55	23	49	4	17			
Rhode Island.....	8	120	46.3	1	3	7	12	2	5		46			3	9	5	9	1	7	1			
Tennessee.....	4	33	41.7	1		4	5	5	2		4	2		3	5		1						
Texas.....	5	22	47.2	1	1				3		2				8	2	1	1	2				
Washington.....	7	26	44.9			1	2	4			3	1	10	2	1	1							
Wisconsin.....	13	254	48.6	3	7	9	32	1	12	3	27	19	15	13	44	3	35		29		2		
Total.....	379	3,857	46.6	63	64	166	439	151	259	90	643	199	150	280	403	243	398	81	204	6	15		3



TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Laborers, male:																							
Alabama.....	4	67	53.8	2	3	2	4				4		2	1	6	5	9	2	20	1	5		1
California.....	20	258	46.1	5	1	7	23	11	23	18	51	34	19	3	31	2	9	1	17		3		
Colorado.....	2	24	49.3	1		1				2	1		3		2	3	10		1				
Connecticut.....	16	490	49.8	3	4	12	22	37	33	19	62	13	12	97	33	16	62	11	38	3	11		2
Georgia.....	7	165	51.3	5	6	3	6	3	6	1	11	5	1	3	33	3	36	2	40		8		
Illinois.....	28	902	47.7	12	14	41	61	50	108	18	116	38	18	36	64	134	103	29	50	2			
Indiana.....	15	839	49.2	25	21	18	57	36	68	15	111	26	30	48	65	40	116	46	79	2	26	1	9
Iowa.....	11	186	51.0	6	2	5	8	2	10	2	14	9	9	8	8	25	22	28	26		2		
Kansas.....	6	28	45.3		3	4		2			3	1	1	1	9	3							1
Kentucky.....	4	23	45.6	3	1		2	1			3			3	3		3	1	1	1	1		
Louisiana.....	4	34	43.0	2	1	2		8	3	1	2		1		2	5	3						
Maine.....	3	39	46.6				3	4	2		16		2	5	6		1						
Maryland.....	7	135	44.4	1	2	20	19	19	5		14	2	3	4	10	9	12	5	7	3			
Massachusetts.....	28	695	47.4	12	12	34	34	72	56	3	83	49	15	44	82	85	48	18	27	4	14	1	2
Michigan.....	39	1,521	46.5	41	65	90	193	22	70	10	181	33	45	159	160	30	210	37	138	10	24		3
Minnesota.....	5	105	49.7	1			9	1	1		21		23	1	6	15	17	1	8				
Missouri.....	12	145	46.1	3	9	10	10	4	1		31	6	15	2	7	6	27		14				
New Hampshire.....	6	31	41.8		2	3	3	7			6			6	1	2	1						
New Jersey.....	17	705	43.5	13	21	20	90	14	22	11	121	17	10	28	102	47	86	10	62	4	26		1
New York.....	25	741	51.1	13	15	37	48	11	25	7	98	53	30	47	62	24	86	20	121	2	36		6
Ohio.....	52	1,237	48.9	24	19	52	121	41	43	9	103	50	100	88	115	39	206	118	92	13	3		1
Oregon.....	7	53	39.7	2	1	3	19	6	2	1	13	2	2			1	1						
Pennsylvania.....	40	1,602	44.4	20	21	63	413	82	188	15	173	81	20	62	142	44	145	42	75	5	10	1	
Rhode Island.....	8	193	52.9	1		4	9	1	5	1	37	2	2	23	12	25	31	8	20		12		
Tennessee.....	7	87	46.1	1	1	4	9	9	4		11	3	2	24	8	1	3	2	5				
Texas.....	9	156	48.2	4	2	7	7	7	4		15	63	4	5	29	14	16	6	13				
Washington.....	6	55	44.1	1	1	3	4	5	6	1	7	9	6	1	9	1			1	1			
Wisconsin.....	13	461	52.5	3	5	10	19	1	21	2	54	23	15	27	88	11	100	3	54	5	17	1	2
Total.....	401	11,017	47.9	204	233	455	1,195	456	706	136	1,356	525	390	726	1,086	596	1,366	391	910	55	199	4	28

**Molders, hand, floor, male:**

<sup>2</sup> Including data for 1 establishment for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Molders, hand, floor, male—Con.																							
Ohio.....	51	832	44.2	14	18	48	94	117	25	6	93	101	84	26	40	67	72	24	3				
Oregon.....	7	38	37.1	1	5	1	9	7	3		9	3											
Pennsylvania.....	40	739	42.7	5	11	28	201	52	74	5	142	39	16	42	55	8	41	8	11		1		
Rhode Island.....	8	106	47.1			10	3		13		23		4	25	9		12	7					
Tennessee.....	7	87	41.5	2	3	4	8	21	6		22	9	1	6		1	2		2				
Texas.....	10	69	49.4	1	1		1		1	1	18	20	4		7	4	3		8				
Washington.....	7	67	42.3	1	2		7	12	1	3	22	8	6	2	3								
Wisconsin.....	12	176	41.2	5	9	20	21	2	41	3	34	13	4	5	12		4			1	2		
Total.....	402	5,375	43.8	68	113	290	763	573	355	154	1,016	473	250	221	333	224	320	90	98	10	18		6
Molders, machine, male:																							
California.....	6	16	45.7				3		1		4		5		3								
Colorado.....	2	4	39.2			1		1	1			1											
Connecticut.....	8	111	48.4	1			11	3	9		44		3	1			37		1				
Georgia.....	2	17	44.9		1	1					12	1			2								
Illinois.....	13	217	46.4	1	6	5	18	35	45		24	1	2	9	13	7	11	35	3	2			
Indiana.....	12	336	43.2	11	11	18	29	13	8	3	136	25	10	12	13	23	3	20	1				
Iowa.....	7	68	45.9		2	2	9	5	6	3	10				11	16			2				
Kansas.....	2	6	39.4	1	1				1				1				2						
Kentucky.....	3	12	40.5			2	5	1			2		1	1									
Maryland.....	4	29	47.3	1		1	2		3				1										
Massachusetts.....	23	325	44.5	1	1	6	22	76	39	1	75	55	5	6	18	7	1	15	3				
Michigan.....	21	456	42.8	4	11	34	122	8	13	1	59	5	9	118	16	4	32	9	11				
Minnesota.....	3	25	44.9	1		1	4		1				2		3	1	2						
Missouri.....	3	28	46.1			1	1				18	3	3		2								
New Hampshire.....	2	19	48.9								3	11		1	2	1	1						
New Jersey.....	15	220	43.9	4	3	10	31	7	29	10	34	17	26	8	17	16	3		5				
New York.....	17	312	42.6	6	5	20	61	43	30	2	36	35	15	5	19	2	24	2	7				
Ohio.....	25	247	44.2	3	3	10	54	37	4	3	11	20	14	7	55	3	8	14	1				
Pennsylvania.....	26	214	41.3	2	3	13	76	24	20		20	3	3	8	14	4	21		3				
Rhode Island.....	7	101	47.0	1	1	6	11	1	15		17			6	3	14	25	1					
Tennessee.....	2	7	39.4			1	1	2			2			1									

Texas.....	3	19	44.8	5	1	1	1	1	10	3	7	5	3	78	3	18	1						
Wisconsin.....	11	288	47.0	5	10	14	17	14	45	1	35	3	32	249	101	53	4	1					
Total <sup>2</sup> .....	220	3,102	44.3	42	59	147	479	267	270	24	589	183	107	190	224	113	249	101					
Molders' helpers, floor, male:																							
Alabama.....	4	62	59.4	3	1	1	2		2		1	1		1	1	13	1	22	9	3			
California.....	11	53	43.3		2	1	8	3	8	6	7	1	7		9	3	1						
Colorado.....	3	59	44.9	1	1	2	15	7	8	2	10	2	2	1	3	2	3	7					
Connecticut.....	12	82	47.3			2	6	3	15		15	1	5	7	14	6	1	6					
Georgia.....	5	51	50.6	2		1	6		3		7		1	1	7	12	1	9	1				
Illinois.....	17	102	44.2	6	5	11	7	14	3		6	5	5	7	4	5	3	11	9	1			
Indiana.....	10	103	47.2	9	3	4	4	5	1		8	10	1	1	12	2	30	1	12	1			
Iowa.....	7	24	50.7				1	1	1	1	1	3	1	1		7	7						
Kansas.....	8	46	49.9			6	6	1	2		4		2		1	13	4		4	2			
Kentucky.....	7	20	47.5	1			1				7			3	6		1	1					
Louisiana.....	5	52	45.1	1			5	12	3	3	6	2	4		5	5	5	1					
Maryland.....	4	21	45.8		1	1	2				4	5	2	1	3	1	1						
Massachusetts.....	20	98	46.8			2	6	12	10	2	31	1	4	2	4	10	7	3	4				
Michigan.....	12	108	48.0	3	4	8	3		4	1	12		2	19	26	2	13	7	3	1			
Minnesota.....	3	30	45.7				7		1		11		8			1	2	2					
Missouri.....	9	99	51.4	3	4	5	2		1		10		2	3	8	19	20	8	9	1			
New Jersey.....	9	106	48.1	2		1	6		1		52	1	1	2	10	9	17	4					
New York.....	17	80	47.2		1	2	16	4	7	2	5	8	3	5	5	2	8	1	10				
Ohio.....	24	207	49.6	2	4	4	13	7	5	1	23	23	8	18	32	15	23	4	25				
Oregon.....	5	16	43.5	1		1	4		1		3	1	1		2	1		1					
Pennsylvania.....	24	224	43.8			12	54	17	20	3	51	6	7	2	17	2	21	2	10				
Rhode Island.....	4	10	51.8								3	1		2	1		2	1					
Tennessee.....	6	66	45.2	1		2	2	21	4		4	9	1	10	3	2	3	4					
Texas.....	8	38	48.3	1		1	1		3		9	1	2	3	8	2	6						
Washington.....	5	22	40.8	2			3	2	3		7	3	1	1	1			1					
Wisconsin.....	7	38	45.5	1	1	1	3		6		3	5	3	5	9								
Total <sup>2</sup> .....	247	1,820	47.4	40	27	68	183	109	105	21	302	87	73	93	191	101	206	36	150	2	18	1	7
Pattern makers, male:																							
Alabama.....	3	17	50.5	1					1				1		5	5	4						
California.....	11	33	42.1	2	1	1	1		3	13	2	8	1		1								
Colorado.....	2	4	32.6	1			1			1	1												
Connecticut.....	4	18	49.4					2			6		1	3		6							
Georgia.....	4	15	49.9				1			1	2		2	7	1	1							
Illinois.....	12	139	43.8		2	3	15	36	8	12	15	23	6	8	2	8	1						
Indiana.....	10	89	51.2				4	1	1	1	10	4	2	17	26	1	18		2		2		
Iowa.....	8	17	44.1		3	1		1			1	2		2	1	5							
Kansas.....	8	11	47.7	1			1			2			1		3	2	1						
Louisiana.....	2	3	46.0							2				1									
Maine.....	3	14	46.4					5					1	8									
Maryland.....	7	20	41.3	2	1		3	3			2	2	1	2	3	3							
Massachusetts.....	22	154	46.7		2	5	5	10	6	2	27	33	11	39	6		4		4				
Michigan.....	29	139	44.0	2	8	5	20	6	11	3	25		9	16	11	1	21		1				
Minnesota.....	5	25	47.4						4		5		15		1								

<sup>2</sup> Including data for 1 establishment for which details are not shown.<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Pattern makers, male—Continued.																							
Missouri	7	35	45.7						4		26		1		1	3							
New Hampshire	2	8	40.4		3										1								
New Jersey	13	137	52.1			1	9	4	10	1	12	2	10	14	10	13	16	4	31				
New York	20	115	50.5					1	6	2	31	6	5	21	4	5	16	2	11		1		
Ohio	30	178	49.3	1	1	2	7	2	3	2	18	32	21	42	4	2	34		7				
Oregon	2	8	38.7			1	4			1	1	1											
Pennsylvania	30	161	48.7		1	2	9	4	10	3	24	26	15	14	16	7	21		9				
Rhode Island	3	11	52.6						1		1				1	3	5						
Tennessee	5	13	46.4				1	4			1			5			2						
Texas	4	6	44.5	1									1				3						
Washington	2	7	44.1						1	4	2												
Wisconsin	10	132	49.0	1	1		3	4	7		26	3	12	10	51		10		4				
Total <sup>2</sup>	259	1,512	47.7	12	23	21	91	83	76	51	236	142	114	208	150	57	168	8	69		3		

## MACHINE SHOPS

Assemblers, male:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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<sup>2</sup> Including data for 1 establishment for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Drill-press hands and operators, male:																							
Alabama	2	26	50.8		2	1					1	1	1	1	1	18		4					
California	18	115	46.2	1		2	4		12	39	10	16	6	3	13	1	4		5		4		
Connecticut	17	155	50.0	1	1	2	4	2	7	2	23		10	44	14	21	14	1	5		4		
Georgia	3	12	46.9			2									6		2		1				
Illinois	34	733	46.5	9	14	15	26	10	52	169	41	37	50	170	77	15	39	13	5				
Indiana	14	168	49.2	3	5	3	4	4	7	1	20		9	39	35	2	16	9	10		1		
Iowa	7	78	55.3	1			1		2		7	2	1	8	3	1	28	8	16				
Kansas	6	15	52.7						1		2	1				5	6						
Kentucky	7	21	40.3		2	2	2		3	3	3	4		2									
Louisiana	2	5	56.7													4			1				
Maine	2	22	44.2				3	1	3	3	7			5									
Maryland	5	51	45.7		1	1	3	3	5		23	2	9										
Massachusetts	37	349	47.9			15	17	4	23	7	65	56	14	75	17	3	33	4	15				
Michigan	29	327	47.3	11	10	9	22	2	15	6	28	34	15	66	14	2	74	5	14				
Minnesota	5	35	46.8			1	2		4	1	6		18				3						
Missouri	17	89	46.2	3	2	3	4	5	1	1	11	15	13	2	4	19	4	1	2				
New Hampshire	7	22	50.5		1							6		5	5	1	3	1					
New Jersey	28	205	48.6	3		2	10		7	3	27	17	14	84	12	3	14	2	7				
New York	23	413	46.8	4	4	10	22	3	22	14	110	138	4	29	19	2	17	4	11				
Ohio	79	755	47.2	5	6	19	84	32	31	3	95	78	65	113	101	18	65	10	30				
Oregon	6	18	42.1	1	1		1	1	1	6	2	1	2				2						
Pennsylvania	43	682	47.0	9	2	17	87	30	47	4	107	51	31	79	67	27	85	6	33				
Rhode Island	12	109	44.9		1	5	17		6		39	1	5	12			1		1		1		
Tennessee	4	26	45.0	1	1		1		2	3	11	1	3	2			1						
Texas	6	29	46.6				1		1	1	13	2		8		2							
Washington	5	24	43.4	1		1	2	2	1	3	6	6		1	1								
Wisconsin	15	275	50.1	2	1	4	21	2	17	15	24	18	10	21	76	1	35		24		3		1
Total	433	4,759	47.5	57	55	114	338	101	270	272	654	518	271	787	478	128	464	63	179		9		1
Fitters and bench hands, male:																							
Alabama	2	12	53.8				1										3	8					
California	17	197	48.2		1	3	5	3	10	67	22	23	8	3	14	4	9	3	20		2		
Connecticut	11	277	51.0	1	1	1	9		9	1	27	1	14	119	9	37	45	2			1		

<sup>a</sup> Including data for 5 establishments for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Laborers, male:																							
Alabama.....	6	53	47.4	3	1	3	2	3	2		4		3	1	2	6	18		3		2		
California.....	21	194	44.7	9	3	4	9	2	11	43	29	25	7	12	19	4	12		4				
Connecticut.....	16	202	50.6			8	6		11	1	25		6	65	24	9	26	3	12	1	3		2
Georgia.....	8	71	50.1	1	1	3	6	1	2		5		6	17	1	17	4	4	1	1			
Illinois.....	32	1,009	48.6	10	8	19	32	21	39	123	60	66	42	273	142	32	94	8	30		9		1
Indiana.....	15	319	51.7	2	3	13	11	6	9	1	30	4	9	75	52	3	47	11	28	1	7	1	6
Iowa.....	9	75	55.0			2		2	1	2	3	1		8	2	3	34	3	13		1		
Kansas.....	5	26	48.6	1	1	1	1				4						6	1					
Kentucky.....	5	25	44.3	1	1	1			3	3	8	2			4		1				1		
Louisiana.....	4	40	46.7		3	5		3	1		7	1	2										
Maine.....	4	33	43.9	1			2	1	2	7	13		1	5		10	3						
Maryland.....	6	58	48.0				4	6	4		4	18	3	14	2			1		2			
Massachusetts.....	36	841	48.6	4	9	14	44	12	42	4	99	92	34	301	55	12	72	7	36		4		
Michigan.....	32	672	48.6	18	12	24	31	9	16	6	86	53	24	112	70	28	129	6	42	2	4		
Minnesota.....	5	103	43.3	9	3	7	1		8	1	11		44	2	9		5	2	1				
Missouri.....	16	158	47.3	5	4	3	9	8	3	1	8	14	33	3	13	37	13	3	1				
New Hampshire.....	8	43	50.5			1		2			1	10	2	12		8	6		1				
New Jersey.....	29	373	50.4	7	6	7	14	1	21	8	25	45	25	67	39	11	37	7	45	1	7		
New York.....	23	871	48.2	12	18	14	38	5	33	8	166	277	24	64	68	24	54	4	44		18		
Ohio.....	80	1,225	48.7	6	20	28	99	32	62	3	122	135	74	152	170	57	177	14	68	1	4		1
Oregon.....	3	21	42.7	1			4		1	6	3	3	1		1		1						
Pennsylvania.....	44	1,182	48.5	17	18	16	84	18	93	5	166	118	43	149	105	42	206	35	58	1	8		
Rhode Island.....	12	121	48.7	3	1		5		10		38		2	9	33		5	1	13		1		
Tennessee.....	8	81	46.2	3	2	1	3	3			4	43	2	12	3		2	3					
Texas.....	12	157	47.7	5	6	3	6		5	1	19	5	7	30	23	31	13	1	2				
Washington.....	6	38	41.0	4	2	1		2	5	4	3	17											
Wisconsin.....	14	351	49.6	5	9	7	11	1	12	44	17	20	16	20	88	3	62	9	23		2	1	1
Total.....	459	8,342	48.6	127	131	184	426	134	397	273	960	949	404	1,392	941	332	1,038	118	438	10	75	2	11

**Lathe hands, turret, male:**

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 Federal Reserve Bank of St. Louis

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Lathe hands, turret, male—Con.																							
Rhode Island.....	11	33	46.7				2		1		16	1	1	6	6								
Tennessee.....	3	10	48.0							1	1	7	1	1									
Texas.....	6	41	46.6	1		1	1		2	1	11	12	1	5	2	2	2						
Washington.....	4	21	43.4	1			1	1	4	2	7	5											
Wisconsin.....	11	137	48.5	2	4	3	6		7	9	22	7	3	3	44		16		11				
Total <sup>2</sup> .....	343	3,167	46.7	29	46	57	320	58	226	184	438	462	162	428	269	80	277	55	70		5		1
Machinists, male:																							
Alabama.....	5	45	51.8	1			1		3		2	2	3	4	16	2	6		4		1		
California.....	24	239	44.2	1	5	8	11	4	12	126	14	19	10	1	16	1	8		3				
Connecticut.....	13	198	53.8	2	1		13		6	2	21	26	16	25	14	4	15		28		23		2
Georgia.....	8	67	46.9	2			5	2	2		21	7	9	3	9		6		1				
Illinois.....	28	356	48.3	1	2	6	8	16	14	53	42	2	10	84	73		20	3	7		2		
Indiana.....	12	147	47.6	4	2	1	6	10	12		13	3	10	51	13		6	8	8				
Iowa.....	8	40	51.8				2	1	3		1	2	1	11	2	2	6	1	7				
Kansas.....	5	28	52.1	1	1	1	1				2		1		2	9	6	1	1		1	1	
Kentucky.....	5	24	44.1			3	1		2		9			8		1	1						
Louisiana.....	5	58	39.8	4	6	1	7		1	18	9	3		1	3	2	3		1				
Maine.....	4	41	48.6	1			1		1	7			3	19	4		2		2				
Maryland.....	7	186	47.1	1	2	1	7	13	5	9	28	69	12	13	8	2	8	1	6		1		
Massachusetts.....	27	410	44.5	19	4	12	32	60	20	14	38	50	23	63	30	5	21	3	15	1			
Michigan.....	25	234	49.8	5		3	11	2	9	4	34	13	16	38	27	7	43	3	16	1	2		
Minnesota.....	6	27	47.7			1			2		1		20		1		1						
Missouri.....	13	123	46.7	3			5	1	7	14	10	50	9	8	8	5	1	1	1	1			
New Hampshire.....	8	117	52.6		1		1		1		1	18	1	25	6	37	14	5	7				
New Jersey.....	31	185	43.3	11	9	14	7	2	9	23	28	9	5	26	21		12		8		1		
New York.....	19	150	49.5		2		3		7	3	22	35	7	23	13	15	9	3	7		1		
Ohio.....	56	278	47.6	3	5	4	20	3	17	2	48	20	46	15	49	11	27	1	6				
Oregon.....	6	27	45.2		1		1	2		6	5	5	6	1									
Pennsylvania.....	31	296	49.5		2	4	16	2	22		40	74	13	26	23	4	43	2	21		4		
Rhode Island.....	13	168	47.5	1	2	4	7		3		34		15	84	12	1	3		1				
Tennessee.....	8	79	46.1	1	2	1	5	2	3	4	14	15	3	19	4		5		1				

Texas.....	9	73	42.3	3	5	10	9	1	1	12	6	3	1	5	5	8	3	1	1	2
Washington.....	7	61	41.8		4	1	6	9	7	19	5	3	2	2	1	2	1	2	1	2
Wisconsin.....	12	137	53.9		1		2		4	2	9	4	4	22	29	7	23	1	26	1
Total.....	395	3,794	47.7	64	57	75	189	130	173	301	470	435	248	571	390	133	299	33	180	3
Machinists' and toolmakers' help- ers, male:																				
Alabama.....	3	14	49.8	1			1						2		3		7			
California.....	20	94	46.3	1		3	6	1	2	31	14	9	3	3	7		7	1	5	
Connecticut.....	9	162	57.7	1	1	2	5		2	1	15	3	5	26	12	18	10	1	28	5
Georgia.....	4	7	45.3	1							15	3	2	26	1		2			
Illinois.....	17	146	45.9	6	2	4	3	8	5	40	14	3	3	15	23	3	11	1	3	2
Indiana.....	6	22	46.1	2		2			1		1		1	4	8		2		1	
Iowa.....	5	11	51.7				1		1					3	1		4		1	
Kansas.....	8	56	52.3		1		2	4	2	2	7		2	3	6	10	15	3	2	
Kentucky.....	2	4	34.8	1					2		1									
Louisiana.....	2	24	33.3	3	2	3	7	2		4				1		2				
Maine.....	3	9	47.8						3	2			1	4	1					
Maryland.....	6	53	46.1			1	3	5	3	1	8	23	1	7				1		
Massachusetts.....	12	77	48.0		1	2	4		4		10	13	9	26	2		5			
Michigan.....	11	57	46.4	1	2	2	2		3		13	10	1	11	6	2	1	3	1	
Missouri.....	11	28	48.1	1		1	2		3	2	4	4	4	3	4	2	4	2	1	
New Jersey.....	23	73	47.7		2	9	2		3	8	4	3	5	12	8	2	8	5	5	
New York.....	21	96	48.6				8		7	1	20	22	3	8	5	4	15	3	3	
Ohio.....	34	209	49.2	1	2	2	10	2	4		22	22	23	47	34	14	21	1	4	
Oregon.....	5	14	43.4	1			2				5	5			1					
Pennsylvania.....	26	159	49.1	2	1	3	6	3	3	6	30	14	8	22	15	12	22	2	10	
Rhode Island.....	9	71	48.6				2		2	1	17	1	3	40	2		2			
Tennessee.....	4	15	46.3		1		1		2		3	4	1	1			1		1	
Texas.....	8	41	39.0	3	1	8	6	2			7	3	3		4	2	1	1		
Washington.....	5	18	43.6	1			3	2		4	4	2			1		1			
Wisconsin.....	13	205	51.8	3	1	7	5	1	4	7	18	10	3	20	45	2	51		21	6
Total <sup>1</sup> .....	269	1,671	48.9	29	17	50	78	32	53	110	215	151	83	250	188	76	190	9	91	6
Milling-machine hands and oper- ators, male:																				
Alabama.....	2	6	52.7				1										5			
California.....	13	57	46.4				5		7	21	4	5		5		3		3		
Connecticut.....	16	147	49.7			1	6	2	6	1	25	2	17	46	14	2	14	2	8	
Illinois.....	25	375	48.5	3		9	16	1	31	60	23	34	22	56	54	13	31	2	16	
Indiana.....	13	71	51.0	1	1	1		1			8		2	19	22		7	2	7	
Iowa.....	3	23	57.0				1	1			1	2	1		1	1	5		10	
Kentucky.....	5	12	44.5				1		3		4	4								
Louisiana.....	2	2	49.2										1	1						
Maine.....	3	18	46.5				2			2	5		1	7	1					
Maryland.....	3	13	42.7				1	1	10		1									
Massachusetts.....	33	343	45.5	2	1	10	28	80	14	1	35	37	13	47	36	2	29	5	3	
Michigan.....	22	124	50.1	2			1	1	4	1	22	13	2	33	11	3	25	4	2	
Minnesota.....	3	13	45.7			2							8							

<sup>1</sup> Including data for 2 establishments for which details are not shown.<sup>2</sup> Including data for 1 establishment for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Milling-machine hands and operators, male—Continued.																							
Missouri.....	10	22	51.1				1			1	1	3	1	1	2	12							
New Hampshire.....	7	36	48.6		1	1	2				4	5	1	9	3	5	5						
New Jersey.....	21	78	48.8			1	3			6	7	10	8	23	5		5	2	2				
New York.....	19	401	47.2	4	7	10	17	2	13	8	114	146	5	16	14	5	16	2	22				
Ohio.....	70	536	47.9	3	6	13	40	17	23	2	64	85	77	63	37	8	68	10	20				
Pennsylvania.....	39	360	46.4	5	4	10	42	5	40	3	36	61	15	25	43	12	51	4	4				
Rhode Island.....	9	91	46.5	1		1	6		5		29	1	3	40	5								
Tennessee.....	2	8	48.9							1	2	1					2						
Texas.....	2	4	52.0													2							
Washington.....	3	10	46.5						1		7	2		2									
Wisconsin.....	15	117	51.9	1	2	5	4	1	5	5	2	3	4	7	31		22	1	21		3		
Total <sup>a</sup> .....	343	2,872	47.8	22	22	65	177	112	169	115	397	415	187	395	282	66	288	34	118		8		
Pattern makers, male:																							
California.....	11	44	43.7				5	1	3	21	5	9					8						
Connecticut.....	12	96	49.8			3	2		4		11	2	11	37	6	3			9				
Georgia.....	3	9	52.6						1					1	1		6						
Illinois.....	25	149	48.2		1	1	5	2	4	27	7	3	32	20	36	6	5						
Indiana.....	7	17	48.1						1		8		1	3	2	1							
Kentucky.....	3	4	48.1							2		1					1						
Louisiana.....	3	5	49.6							3							2						
Maryland.....	3	6	48.1					1			1	3					1						
Massachusetts.....	16	57	48.0		1	1	5				9	8	3	15	6		8		1				
Michigan.....	7	11	49.8								2	2	1	2	3		1						
Missouri.....	7	15	47.5			2		1	1		1		2	1	1	3	3						
New Hampshire.....	5	7	50.3								2	2	1		2								
New Jersey.....	17	77	47.8	1		1	7	1	6	3	12	11	3	16	5		3	1	7				
New York.....	11	140	51.5		1	4	3	3	2	2	35	24	2	1	10	1	24	1	27				
Ohio.....	43	191	48.4		1	4	7	6	8	12	35	26	15	14	25	9	28		1				
Oregon.....	3	7	45.8							3	2	2											
Pennsylvania.....	29	204	49.8			5	14	2	4	2	15	43	6	15	16	5	73		4				



Rhode Island.....	10	57	50.8	1	1	1	3	5	31	6	4	5							
Tennessee.....	3	7	49.1					5		2									
Texas.....	4	11	49.9		1		1	2	3			2							
Washington.....	4	17	46.3			1	3	4	9										
Wisconsin.....	8	95	50.4	4	1	1	5	3	1	4	5	52	10		4				
Total <sup>2</sup> .....	235	1,228	49.1	1	5	25	52	20	43	78	157	153	87	166	171	30	177	3	60
Planer hands and operators, male:																			
Alabama.....	2	6	50.3	1											3	1	1		
California.....	14	41	44.7	1	1	3	3	3	13	1	10		2	2	1	1	1		
Connecticut.....	17	148	53.3	1		4		6	2	24	1	6	31	10	15	20	1	16	8
Georgia.....	2	10	36.6	2	1	2							1		3				
Illinois.....	23	135	46.9	2	2	8	4	7	17	18	5	8	26	23	3	5	4	1	
Indiana.....	9	34	46.7	2	1			1	2	10			6	9	3	3			
Iowa.....	4	6	56.8							1			1		1	1	2		
Kansas.....	6	6	51.9							1		1			1	1			
Kentucky.....	4	13	42.6	1		1		1	1	1	8								
Maine.....	3	12	42.1		2			1	3	1	1	1	3						
Maryland.....	2	8	44.3					4											
Massachusetts.....	31	177	48.4	1	1	2	10	5	6	3	28	37	8	37	8	3	16	3	9
Michigan.....	12	46	47.8	1	1	2	1		1	1	8	13		6	2	5	3	2	
Minnesota.....	5	9	49.2							2			5	1		1			
Missouri.....	10	48	46.9			4	3	2	3		24	1	4	1	6				
New Hampshire.....	5	12	44.9	2						1						1			
New Jersey.....	23	71	47.8		1	1	3		7	8	8	9	7	11	11		1	1	1
New York.....	21	174	48.4		1	5	13		9	1	43	40	7	10	8	6	15	10	5
Ohio.....	68	462	49.2	1	5	7	35	9	21	2	54	58	41	64	52	22	47	7	36
Oregon.....	3	4	44.4						2	2									
Pennsylvania.....	42	254	49.9	3	4	2	14	7	9	2	49	15	11	17	24	9	52	8	28
Rhode Island.....	11	36	46.3			1	4		1		13			9	8				
Tennessee.....	3	6	45.2								3			2					
Texas.....	3	3	47.4						1				1						
Washington.....	4	7	47.1						1	3	3	1							
Wisconsin.....	11	87	49.9		1	4	1	6	15	5	7	1	7	27	1	6		2	4
Total <sup>2</sup> .....	339	1,818	48.8	12	24	27	106	33	87	77	276	235	98	246	186	72	180	33	107
Screw-machine hands and operators, male:																			
Alabama.....	2	4	54.5												1	2	1	2	
California.....	3	7	44.7			1	1	1	2										
Connecticut.....	9	69	44.9	1		1	4	6	1	34		7	14			1			
Illinois.....	18	116	45.9	1	3	1	9	3	10	24		8	14	16	22		1	2	
Indiana.....	4	11	47.6		1					1			1	5	3				
Iowa.....	2	6	58.3																
Kentucky.....	3	8	38.8			2			3		2	1					1	2	2
Maine.....	2	4	50.0																
Massachusetts.....	26	115	47.8				14	2	3	1	13	23	5	3	26	20	8		
Michigan.....	15	68	48.0			2	5				13	7	3	25	8		1		1
Missouri.....	4	7	50.2							1	1	2		1	2				

<sup>2</sup> Including data for 1 establishment for which details are not shown.<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE D.—Average and classified hours actually worked in one week by employees in 23 specified occupations, 1927, by sex and State—Contd.

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average hours actually worked in 1 week	Number of employees who during one week worked—																			
	Estab-lish-ments	Em-ploy-ees		Under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 hrs.	Over 40 and under 44 hrs.	44 hrs.	Over 44 and under 48 hrs.	48 hrs.	Over 48 and under 50 hrs.	50 hrs.	Over 50 and under 54 hrs.	54 hrs.	Over 54 and under 60 hrs.	60 hrs.	Over 60 and under 72 hrs.	72 hrs.	Over 72 and under 84 hrs.	84 hrs.	Over 84 hrs.
Screw-machine hands and operators, male—Continued.																							
New Hampshire.....	2	7	52.0							1	1			1	4								
New Jersey.....	12	30	48.5		1	1	1		1		2	2	6	11	2		2				1		
New York.....	14	170	45.8	4	1	2	11		12	4	50	73	2	3	3		2		3				
Ohio.....	49	432	48.1	5	5	8	34	14	28	3	45	35	102	25	18	5	82	6	17				
Pennsylvania.....	21	287	43.4	2	1	9	87	4	36		35	35	4	27	8	19	16	1	3				
Rhode Island.....	11	62	43.1		1	7	9		4		15		3	20	3								
Wisconsin.....	13	104	49.1	2		5	4	1	8	10	11	3		8	23	1	18		8		2		
Total.....	213	1,520	46.5	15	13	38	181	26	113	45	225	194	153	185	114	33	136	11	34	1	3		
Toolmakers, male:																							
Alabama.....	2	8	57.3													2	4	1	1				
California.....	15	56	47.7	1			1	1	2	22	6	5		11			3		3				
Connecticut.....	18	115	48.7	1	3	1	7		4		17		7	38	10	5	14		8				
Georgia.....	4	6	53.6											1	3		2						
Illinois.....	24	300	49.6	2	2	4	9	1	8	13	21	49	42	39	58	17	25	2	1		7		
Indiana.....	13	77	51.3			1	1		3	1	9		2	27	8	12	6		6		1		
Iowa.....	3	11	53.4						1				1			2	1		2				
Kansas.....	2	2	56.3														2						
Kentucky.....	6	12	44.4				1		2	2	4	2		1									
Maine.....	4	16	45.0				1		3	3	5		1	3									
Maryland.....	4	42	46.9					4	3		7	26	1	1									
Massachusetts.....	35	283	47.7	1		4	21	29	11	3	36	53	24	52	11		20	2	16				
Michigan.....	24	202	49.2		3	1	3	1	12	2	35	12	14	55	31	2	20		11				
Minnesota.....	3	11	47.0		1						2		5		2		1						
Missouri.....	12	27	48.5			1		1	3		10			1	4	5	1						
New Hampshire.....	5	20	51.1				1		1		6		1	3	1	3	3		1				
New Jersey.....	17	85	47.3		1		6		10	4	6	14	9	24	7	2	2						
New York.....	20	407	48.0			5	15	2	13	5	126	175	7	19	7	7	12		14				
Ohio.....	64	607	47.6	7	4	16	36	12	30	4	82	149	63	64	56	3	64	3	14				
Oregon.....	2	3	45.3				1			1							1						
Pennsylvania.....	38	276	48.8	1	1	5	13	5	8	7	33	52	31	24	29	4	54	3	5		1		

Rhode Island.....	11	109	48.1	1	2	1	1	11	1	16	14	41	17	1					
Tennessee.....	3	9	47.2			1				3		5							
Texas.....	6	13	46.4			1	1	1	1	1	1	3	1	1					
Washington.....	4	6	46.8							1	4								
Wisconsin.....	14	159	50.3	2	1	4	5	2	11	2	6	13	3	13	66	19	12		
Total <sup>2</sup> .....	354	2,863	48.5	16	18	44	123	58	138	71	415	575	227	417	322	67	254	11	98

<sup>2</sup> Including data for 1 establishment for which details are not shown.

<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State

FOUNDRIES

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-ployees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
Chippers and rough grinders, male:																						
Alabama.....	2	23	\$17.74	1	1	1	15	5														
California.....	21	101	27.27		1	1	2	20	46	30	1											
Colorado.....	3	40	20.74		1	4	9	19	6		1											
Connecticut.....	16	114	24.48		2	4	15	40	37	8	6	2										
Georgia.....	4	38	11.61	1	20	8	7	2														
Illinois.....	24	293	27.58	1	4	9	44	56	71	63	19	11	9	4		2						
Indiana.....	13	166	23.55	4	3	13	32	39	44	24	6	1										
Iowa.....	11	70	24.43		2	3	8	34	9	6	5		2		1							
Kansas.....	8	38	18.97	1	6	2	8	18	3													
Kentucky.....	5	20	19.97	2			7	6	5													
Louisiana.....	3	34	15.68	1	1	9	17	6														
Maine.....	3	24	21.69			1	10	7	3	1	2											
Maryland.....	7	37	20.09		2	3	13	13	3	3												
Massachusetts.....	28	378	25.32		6	4	25	202	71	30	15	13	7	2		2		1				
Michigan.....	38	380	25.51	7	9	36	49	81	81	62	35	14	5	1								
Minnesota.....	5	43	28.85	1			3	15	7	5	8	4										
Missouri.....	11	51	24.09		1	2	5	25	17	1												
New Hampshire.....	5	27	24.03			2	2	14	7		1	1										
New Jersey.....	17	250	25.58		2	21	23	46	101	46	8	2	1									
New York.....	23	296	29.00		7	3	28	55	74	50	54	20	2	1		1	1					
Ohio.....	50	486	23.32	4	11	35	89	187	76	56	18	7	1	1				1				
Oregon.....	7	23	23.57		1			16	4	1	1											
Pennsylvania.....	38	470	24.85	6	10	20	70	139	141	45	14	22	2		1							

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-employees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
Chippers and rough grinders, male—Continued.																						
Rhode Island.....	8	120	\$23.90	—	2	4	20	52	19	20	2	—	—	—	—	—	—	—	—	—	—	—
Tennessee.....	4	33	14.04	1	3	12	16	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Texas.....	5	22	17.19	1	1	2	10	7	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Washington.....	7	26	29.12	—	—	1	1	1	9	12	2	—	—	—	—	—	—	—	—	—	—	—
Wisconsin.....	13	254	29.00	2	7	5	31	47	64	41	20	13	13	7	1	2	—	1	—	—	—	—
Total.....	379	3,857	25.04	33	103	205	559	1,153	899	504	218	111	42	16	6	5	2	1	—	—	—	—
Core makers, male:																						
Alabama.....	3	19	27.57	—	—	3	4	2	1	2	4	3	—	—	—	—	—	—	—	—	—	—
California.....	21	117	37.26	—	1	3	4	2	10	23	17	42	12	2	—	—	—	—	1	—	—	—
Colorado.....	3	20	32.73	—	—	—	1	—	7	4	3	—	—	—	—	—	—	—	—	—	—	—
Connecticut.....	16	96	34.63	—	—	2	1	7	16	22	21	16	8	3	—	—	—	—	—	—	—	—
Georgia.....	7	31	22.05	1	1	2	8	13	1	2	3	—	—	—	—	—	—	—	—	—	—	—
Illinois.....	26	227	35.20	1	5	6	9	12	30	37	44	49	19	9	4	1	—	—	—	—	1	—
Indiana.....	16	170	30.70	2	4	7	17	21	20	39	31	16	11	—	2	—	—	—	—	—	—	—
Iowa.....	11	78	35.92	1	1	3	3	9	7	17	8	11	3	5	6	2	2	—	—	—	—	—
Kansas.....	8	15	26.96	—	1	1	—	4	3	3	3	—	—	—	—	—	—	—	—	—	—	—
Kentucky.....	6	9	31.89	—	—	—	1	1	2	3	1	—	—	—	—	1	—	—	—	—	—	—
Louisiana.....	5	14	28.77	—	—	1	2	1	2	7	—	—	1	—	—	—	—	—	—	—	—	—
Maine.....	4	9	23.39	—	—	—	3	4	—	1	1	6	—	—	—	—	—	—	—	—	—	—
Maryland.....	7	52	26.98	—	1	5	9	10	6	6	9	26	9	3	3	1	—	—	—	—	—	—
Massachusetts.....	28	163	36.54	—	—	1	—	16	16	35	49	26	9	3	3	1	—	3	—	—	—	1
Michigan.....	35	338	32.39	1	4	5	24	45	55	71	58	46	19	4	2	4	—	—	—	—	—	—
Minnesota.....	5	51	33.36	—	—	3	—	7	12	5	8	8	—	—	—	—	—	—	—	—	—	—
Missouri.....	12	63	36.03	—	1	—	5	6	7	7	6	—	27	2	—	—	—	—	—	—	—	—
New Hampshire.....	7	9	31.21	—	—	—	2	—	—	2	—	3	—	—	—	—	—	—	—	—	—	—
New Jersey.....	17	130	36.43	—	1	1	2	11	14	20	46	12	12	7	2	1	—	1	—	—	—	—
New York.....	24	220	35.33	—	1	3	7	19	25	48	41	42	27	3	4	—	—	—	—	—	—	—
Ohio.....	51	393	35.62	2	4	6	13	14	64	70	106	37	43	24	9	—	1	—	—	—	—	—
Oregon.....	7	12	33.17	—	—	—	3	3	1	2	4	1	—	—	—	—	—	—	—	—	—	—
Pennsylvania.....	38	512	32.68	—	2	9	25	54	132	89	73	76	43	6	2	1	—	—	—	—	—	—
Rhode Island.....	8	52	29.31	—	—	1	5	7	13	17	5	3	1	—	—	—	—	—	—	—	—	—
Tennessee.....	7	41	25.86	1	4	—	6	7	7	10	3	2	1	—	—	—	—	—	—	—	—	—

<sup>1</sup> Including data for 2 establishments for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-ployees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
<b>Molders, hand, bench, male:</b>																						
California	18	60	\$38.10	1	1		1		6	6	7	35	2	1								
Connecticut	13	111	29.84		1	1	7	13	31	36	14	4	3			1						
Georgia	4	34	27.40			1	4	10	8	7	4											
Illinois	22	134	36.16		1		6	6	14	37	23	28	11	4	2		1	1				
Indiana	14	109	36.47		2	8	6	11	9	17	13	15	6	12	3	3	1	1		1		1
Iowa	7	53	40.41				2	3	7	9	7	6	5	6		1	2					
Kansas	6	8	29.52				1	1	2	2	1	1										
Kentucky	5	11	30.17					4	4		1	2										
Louisiana	2	4	20.94			1	1	1	1													
Maine	4	12	32.14						1	9	1											
Maryland	6	31	31.35				1	2	10	9	5	4										
Massachusetts	27	295	39.14		2	2	3	16	19	32	99	59	21	19	12	4	6	1				
Michigan	35	294	35.85	2	8	8	10	28	36	47	57	34	27	9	12	8	3	3	2			
Minnesota	4	36	39.15	1			1	2	3	3	6	8	4									
Missouri	6	18	30.10				2	2	7	3	2		2									
New Hampshire	6	25	32.83	1					5	7	9	3										
New Jersey	15	73	40.30					5	1	5	21	17	17	5		1						
New York	20	157	34.98		1		12	19	20	40	25	10	4	8	16	1	1					
Ohio	43	237	33.85		1	8	11	19	52	36	40	26	34	7	3							
Oregon	5	8	31.43		1				1	4	1	1										
Pennsylvania	28	185	34.01			2	5	17	36	40	44	29	6	2	2		1	1				
Rhode Island	8	57	33.07		1	2	2	3	13	18	9	1	3	1	2	1		1				
Tennessee	4	34	23.13	3	1	6	5	4	2	6	2	5										
Texas	6	15	35.83						2	6	3	3		1								
Washington	4	11	36.65						1	2	5	3										
Wisconsin	11	50	29.23	2		2		14	9	14	2	4	2			1						
<b>Total</b>	<b>324</b>	<b>2,063</b>	<b>35.12</b>	<b>10</b>	<b>20</b>	<b>41</b>	<b>82</b>	<b>180</b>	<b>301</b>	<b>395</b>	<b>401</b>	<b>298</b>	<b>151</b>	<b>79</b>	<b>57</b>	<b>21</b>	<b>15</b>	<b>8</b>	<b>2</b>	<b>1</b>		<b>1</b>
<b>Molders, hand, floor, male:</b>																						
Alabama	4	53	38.19		1		2	4	2	8	12	15	3	3	1	1	1					
California	19	205	39.34		1	6	1	8	11	30	18	90	33	4	1				1	1		
Colorado	3	49	34.08				1	7	16	2	7	7	7	2								
Connecticut	16	244	35.55		4	5	3	18	15	81	54	25	25	5	5	2	2					
Georgia	7	68	30.93			5	4	7	16	9	23	2		2								

\* Including data for 3 establishments for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## FOUNDRIES—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-ployees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
<b>Molders' helpers, floor, male:</b>																						
Alabama.....	4	62	\$19.33	3	4	3	20	25	6		1											
California.....	11	53	25.67		1	1	2	14	22	7	5	1										
Colorado.....	3	59	20.92	1	2	2	29	7	10	5	3											
Connecticut.....	12	82	25.22		1	3	16	32	13	7	3	4	3									
Georgia.....	5	51	13.11	2	11	20	16	1	1													
Illinois.....	17	102	23.96	3	7	8	12	30	19	9	3	5	6									
Indiana.....	10	103	20.79	9	3	7	8	48	21	6	1											
Iowa.....	7	24	21.85				7	13	4													
Kansas.....	8	46	18.59		7	7	9	15	7	1												
Kentucky.....	7	20	18.02	2		2	7	9														
Louisiana.....	5	52	18.24		1	16	17	11	4	3												
Maryland.....	4	21	20.63			5	9	2	1	4												
Massachusetts.....	20	98	24.71			2	12	43	25	8		5	2	1								
Michigan.....	12	108	28.66		4	8	7	15	25	21	14	7	6	1								
Minnesota.....	3	30	20.02			2	14	11	3													
Missouri.....	9	99	25.66	2	5	7	15	10	33	15	6	3	1		2							
New Jersey.....	9	106	23.70	2		2	21	46	14	11	3	2	1	1								
New York.....	17	80	27.17		1	5	18	16	13	12	9	8	1									
Ohio.....	24	207	23.48	2	4	8	54	60	38	33	6	1	1									
Oregon.....	5	16	25.94				1	5	2		1	1										
Pennsylvania.....	24	224	23.93		1	9	58	55	63	33	3	1										
Rhode Island.....	4	10	27.27					3	4	3												
Tennessee.....	6	66	14.15	1	2	37	23	3														
Texas.....	8	38	19.20		1	7	12	10	7	1												
Washington.....	5	22	25.17	1	1		1	4	11	3	1											
Wisconsin.....	7	38	22.65	1	1		7	18	8	3	2											
Total <sup>1</sup> .....	247	1,820	22.91	29	58	161	395	509	357	185	66	35	21	2	2							
<b>Pattern makers, male:</b>																						
Alabama.....	3	17	\$39.65		1				1	1		14										
California.....	11	33	42.28			2		1	1		3	9	12	4	1							
Colorado.....	2	4	29.33		1				1		1		1									
Connecticut.....	4	18	32.17				1	2	7	2	3	1	2									
Georgia.....	4	15	33.36				2	2	2	3	2	1	2	1								



Illinois	12	139	39.01				2	2	7	13	48	52	11		4					
Indiana	10	89	47.71						3	8	13	11	18		7	6	2	1	3	1
Iowa	8	17	30.22	1	1		2			2	6	3								
Kansas	8	11	34.45				1	1		2	2	1								
Louisiana	2	3	34.93							1	2			1				1		
Maine	3	14	29.16							5	1									
Maryland	7	20	30.57	1	1	1	2	1	2	2	6	2	1	1						
Massachusetts	22	154	35.12			3		7	22	39	45	33	4		1					
Michigan	29	139	37.21			1	6	8	15	31	23	24	22	2	3	1	1	1	1	
Minnesota	5	25	34.60						4	11	10									
Missouri	7	35	48.90						1	2			8	21		1				
New Hampshire	2	8	31.22		1	2				1		4								
New Jersey	13	137	44.93			1		6	8	12	25	26	14	7	15	11	11			
New York	20	115	41.15					1	6	17	33	20	22	10	2	3	1			
Ohio	30	178	41.16			1	1	3	11	22	25	52	47	6	8	2				
Oregon	2	8	35.28							1	4	2								
Pennsylvania	30	161	40.69					2	10	21	43	55	14	2	8	5	1			
Rhode Island	3	11	34.83						1	3	6	1								
Tennessee	5	13	40.65						1	1	5	1	2	3						
Texas	4	6	51.73			1				3		2								
Washington	2		39.76							7	1		1							
Wisconsin	10	132	38.19			1	1		10	29	41	33	11	3	2		1			
Total <sup>2</sup>	250	1,512	39.62	1	7	11	20	42	122	233	353	348	193	77	51	29	17	3	4	1

## MACHINE SHOPS

Assemblers, male:																
Alabama	2	22	\$29.35			1	6	6	4	3	2					
California	14	146	37.96		2	2	3	14	32	52	20	4				
Connecticut	18	324	33.66		2	5	3	34	70	78	28	17	5	3	5	3
Georgia	2	7	32.00				1	1	1	2		1	11			2
Illinois	31	860	33.34	5	3	7	25	73	151	218	73	32	11	4	2	1
Indiana	14	325	26.78	3	1	7	13	107	114	50	15	3		1	1	
Iowa	9	89	27.12	1	1	2	6	26	22	23	5	2			1	
Kansas	3	40	17.32	2	9	2	11	9	3	2	2					
Kentucky	6	76	26.03		3	5	10	12	17	23	4	1	1			
Louisiana	2	2	23.08					2								
Maine	3	22	23.72		1	2	1	7	8	3						
Maryland	9	41	29.33				1	15	8	6	7	1	1	2		
Massachusetts	9	241	28.54		2	10	15	50	65	60	21	9	7	2		
Michigan	24	504	30.35	2	3	3	24	67	138	140	94	22	6	5		
Minnesota	68	28	23		2	3	3	14	19	19	7	3				
Missouri	15	134	28.32	1	1	3	8	30	29	37	24					
New Hampshire	4	16	28.83					1	8	6		1				
New Jersey	26	480	35.23	1	3	1	6	29	98	116	108	49	35	16	8	2
New York	22	976	33.29	2	9	10	24	64	183	335	204	83	32	12	6	1
Ohio	72	1,718	30.13	5	16	24	81	179	552	482	270	61	29	9	4	

<sup>a</sup> Including data for 1 establishment for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-ployees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
<b>Assemblers, male—Continued.</b>																						
Oregon	5	30	\$31.74		1			3	6	14	2	4										
Pennsylvania	42	1,187	31.25	1	11	13	72	217	286	240	135	113	39	34	16	2	8					
Rhode Island	10	143	27.76				6	31	70	24	4	1	4	1								
Tennessee	2	30	24.14		1	3	4	9	4	9												
Texas	5	67	26.83			1	4	15	37	3	4	1	2									
Washington	4	34	37.44						2	7	16	6	2	1								
Wisconsin	14	437	31.62	1	2	12	17	50	102	115	69	45	15	3	1	2	1	1				
Total	368	8,019	31.26	24	71	117	336	1,054	2,013	2,047	1,379	533	230	112	43	30	21	6	2			1
<b>Fitters and bench hands, male:</b>																						
Alabama	2	12	31.92				1	1	4	1	2	3										
California	17	197	38.38			1	1	15	17	36	69	22	9	5	6	8	7	1				
Connecticut	11	277	32.61		1	1	9	20	63	86	60	26	6	2	2			1				
Georgia	2	19	13.09		6	11	1				1									1		
Illinois	24	562	34.26	1		7	14	35	101	144	138	80	29	8	2	1	1					
Indiana	10	131	30.32		1	1	5	11	36	47	24	4	2									
Iowa	4	38	22.21	1		3	5	18	9	2												
Kansas	4	12	27.40					1	3	5	1	2										
Kentucky	5	29	25.69					4	6	8	5	2	1									
Maine	2	63	21.36		1	4	17	25	14	2												
Massachusetts	35	1,100	31.80						333	332	188	82	25	14	5	3						
Michigan	25	489	31.44	5	8	11	20	54	83	132	107	48	17	2		1	1					
Minnesota	5	12	32.83						6	2	1											
Missouri	10	64	27.41		1		5	18	20	11	4	1	3									
New Hampshire		72	37.01					1	3	6	5	28	20	6								
New Jersey	25	378	30.21		4	5	14	35	114	74	73	21	3	4	1							
New York	20	922	34.64		2	9	15	46	164	315	179	106	37	27	13	4	1	2	1			
Ohio	62	856	30.63		9	7	36	126	213	250	141	38	23	10	2							
Oregon	3	8	25.08	1			2		1	2	1											
Pennsylvania	33	952	30.75		3	13	55	162	189	249	174	72	22	11	2							
Rhode Island	6	114	27.78		1	1	7	15	87	24	6	2	1									
Tennessee	3	20	22.81	1	1		2	6	8	1	1											
Texas	2	6	25.75				1	1	3													
Washington	3	31	35.01			1				7	22											

Wisconsin.....	13	203	31.58	---	2	3	10	32	71	93	42	30	5	2	2	---	---	1	---	---
Total <sup>2</sup> .....	332	6,661	31.85	15	47	93	252	723	1,527	1,824	1,265	557	190	85	39	19	12	5	2	1
<b>Boring-mill hands and operators, male:</b>																				
Alabama.....	2	14	37.45	---	---	---	---	1	2	1	5	3	1	---	---	---	1	---	---	---
California.....	15	63	40.33	---	---	---	---	---	1	15	18	18	3	4	2	2	---	---	---	---
Connecticut.....	16	109	39.56	1	---	1	2	5	10	25	19	17	10	5	4	4	3	3	---	---
Georgia.....	4	7	25.24	---	---	---	---	2	2	---	---	---	---	---	---	---	---	---	---	---
Illinois.....	30	253	37.46	1	4	3	1	15	18	45	85	29	32	10	4	4	2	---	---	---
Indiana.....	9	30	30.96	---	---	---	1	4	6	9	10	---	---	---	---	---	---	---	---	---
Iowa.....	3	19	32.17	---	---	---	---	3	5	5	3	2	1	---	---	---	---	---	---	---
Kansas.....	3	6	22.46	---	---	---	2	2	2	---	---	---	---	---	---	---	---	---	---	---
Kentucky.....	4	8	30.15	---	---	---	2	3	1	2	---	---	---	---	---	---	---	---	---	---
Louisiana.....	3	6	36.64	---	---	---	---	---	1	---	3	1	1	---	---	---	---	---	---	---
Maine.....	3	10	26.55	---	2	---	---	---	5	1	1	1	---	---	---	---	---	---	---	---
Maryland.....	3	4	36.61	---	---	---	---	2	---	---	---	---	1	1	---	---	---	---	---	---
Massachusetts.....	27	110	34.27	---	2	1	---	---	19	45	22	12	7	2	---	---	---	---	---	---
Michigan.....	15	84	32.60	---	2	---	2	4	33	17	7	11	6	---	---	1	1	---	---	---
Minnesota.....	3	15	33.49	---	---	---	---	2	3	6	---	3	1	---	---	---	---	---	---	---
Missouri.....	11	52	34.20	---	---	1	2	4	10	6	12	15	2	---	---	---	---	---	---	---
New Hampshire.....	4	6	30.62	---	---	---	---	1	2	2	1	---	---	---	---	---	---	---	---	---
New Jersey.....	25	119	36.36	---	---	4	1	3	18	34	24	12	10	10	1	---	---	2	---	---
New York.....	21	208	34.03	1	4	5	9	14	16	58	66	12	9	4	7	3	---	---	---	---
Ohio.....	74	514	35.89	2	2	5	13	33	62	120	140	70	31	15	8	2	6	4	1	---
Oregon.....	4	12	34.33	---	---	---	---	---	1	6	2	1	---	---	---	1	---	---	---	---
Pennsylvania.....	42	334	35.26	---	---	2	7	24	58	69	86	54	14	11	7	2	---	---	---	---
Rhode Island.....	9	33	31.96	---	---	---	1	4	16	5	---	5	---	---	---	2	---	---	---	---
Tennessee.....	2	8	29.69	---	---	---	1	1	2	3	1	---	---	---	---	---	---	---	---	---
Texas.....	5	6	26.85	---	---	1	---	1	1	3	---	---	---	---	---	---	---	---	---	---
Washington.....	3	15	37.44	---	---	---	---	---	1	13	1	---	---	---	---	---	---	---	---	---
Wisconsin.....	14	163	38.26	1	1	---	3	5	29	35	29	14	21	12	5	4	1	3	---	---
Total.....	354	2,208	35.71	6	15	25	50	133	323	513	548	281	150	74	38	24	15	12	1	---
<b>Drill-press hands and operators, male:</b>																				
Alabama.....	2	26	20.63	---	1	1	13	8	1	1	1	---	---	---	---	---	---	---	---	---
California.....	18	115	30.94	---	1	1	---	20	36	27	18	8	3	1	---	---	---	---	---	---
Connecticut.....	17	155	30.34	1	---	3	3	26	41	45	27	4	2	2	---	1	---	---	---	---
Georgia.....	3	12	17.27	---	2	---	---	5	2	2	---	---	---	---	---	---	---	---	---	---
Illinois.....	34	733	31.92	3	10	15	24	73	132	199	174	76	19	8	---	---	---	---	---	---
Indiana.....	14	168	26.65	---	5	---	---	6	11	44	53	25	14	1	---	---	---	---	---	---
Iowa.....	7	78	26.92	---	1	4	5	17	23	20	8	---	---	---	---	---	---	---	---	---
Kansas.....	6	15	22.97	---	---	---	---	7	6	---	---	---	---	---	---	---	---	---	---	---
Kentucky.....	7	21	19.85	---	2	5	4	4	4	2	---	---	---	---	---	---	---	---	---	---
Louisiana.....	2	5	19.95	---	---	3	---	---	---	---	1	---	---	---	---	---	---	---	---	---
Maine.....	2	22	24.32	---	---	---	6	6	6	3	1	---	---	---	---	---	---	---	---	---
Maryland.....	5	51	25.16	---	---	1	2	29	15	1	1	1	1	---	---	---	---	---	---	---
Massachusetts.....	37	349	30.03	---	---	4	14	63	103	92	46	18	5	1	1	1	---	---	---	---

<sup>2</sup> Including data for 1 establishment for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-employees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
Drill-press hands and operators, male—Continued.																						
Michigan.....	29	327	\$27.29	8	12	11	24	94	57	43	46	24	3	2	2	1						
Minnesota.....	5	35	32.43				1	7	4	9	8	5				1						
Missouri.....	17	89	23.81	2	2	5	15	25	20	16	4											
New Hampshire.....	7	22	32.68			1			6	6	6	3										
New Jersey.....	23	205	31.09	1	2	1	6	33	57	40	36	20	5	2	2							
New York.....	23	413	29.85	3	3	5	19	48	139	125	47	10	3	4	3	4						
Ohio.....	79	755	27.71	1	8	20	76	145	209	194	69	25	7	1								
Oregon.....	6	18	26.73		1	1		5	6	3		2										
Pennsylvania.....	43	682	27.13	3	7	34	63	146	198	124	70	31	5	1								
Rhode Island.....	12	109	25.73		1	5	12	32	30	23	3	3										
Tennessee.....	4	26	21.05	1	1	3	5	10	4		2											
Texas.....	6	29	23.49		1	1	4	7	13	3												
Washington.....	5	24	30.46			1	1	1	6	8	7											
Wisconsin.....	15	275	29.85		2	3	14	50	90	57	34	12	7	4	2							
Total.....	433	4,759	28.71	24	62	136	328	902	1,261	1,066	622	252	60	28	10	7		1				
Grinding-machine hands and operators, male:																						
California.....	10	47	34.87		1		2	2	9	11	9	5	4	4								
Connecticut.....	15	122	30.97		2		1	22	32	33	19	10	1	1	1							
Georgia.....	2	5	21.93			1	2	1			1											
Illinois.....	24	412	35.77	2	4	3	8	22	50	92	106	78	26	11	5	4			1			
Indiana.....	11	93	32.51		1	3	3	12	21	20	13	8	7	3	2							
Iowa.....	5	38	28.50				2	9	13	8	5		1									
Kansas.....	2	3	36.14					1		1					1							
Kentucky.....	3	4	19.34		1		2			1												
Maine.....	2	8	28.07					1	5	2												
Maryland.....	2	17	34.66					1	2	2	10	2										
Massachusetts.....	34	185	31.82			2	5	24	46	53	35	11	3	3	2		1					
Michigan.....	21	173	30.50			4	19	25	34	34	32	19	4	1	1							
Minnesota.....	2	14	33.03					1	3	5	4	1										
Missouri.....	10	27	26.21		1		4	7	8	4	3											
New Hampshire.....	3	13	31.06			1		1	1	6	3	1										

<sup>4</sup> Including data for 5 establishments for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-employees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
<b>Lathe hands and operators, engine, male—Continued.</b>																						
Kentucky.....	7	46	\$26.55		1	1	3	10	15	12	3	1										
Louisiana.....	3	19	32.83				2	4	3	1	4		3	2								
Maine.....	3	56	26.59		1	1	1	11	28	14												
Maryland.....	4	31	25.24			2	2	18	3	1	3	1		1								
Massachusetts.....	36	648	30.05	1	3	6	27	76	207	80	25	9	3	3	1	1						
Michigan.....	21	278	30.75	4	4	3	9	33	63	83	51	22	3	2	1							
Minnesota.....	5	53	30.86					9	15	15	7	5	1									
Missouri.....	16	159	31.82		4	1	8	19	28	29	56	13	1									
New Hampshire.....	6	54	31.61			3		1	13	23	10	4										
New Jersey.....	26	252	33.85	3	4	3	5	13	35	73	69	26	10	9		1	1					
New York.....	22	438	35.27	2	3	5	15	22	46	169	85	29	22	11	13	10	5					
Ohio.....	80	1,014	33.27	2	7	13	44	110	163	293	192	81	52	28	14	5	8		1	1		
Oregon.....	5	26	33.33		1		1		1	13	6	3										
Pennsylvania.....	44	727	33.13	3	2	13	34	69	123	163	180	86	33	15	6							
Rhode Island.....	11	125	28.33			2	3	26	45	40	7		1					1				
Tennessee.....	3	40	28.94				2	9	10	15	4											
Texas.....	6	66	32.08		1			6	18	9	30		1	1								
Washington.....	4	40	34.46					1	4	7	25	2										
Wisconsin.....	14	266	35.50	1		1	7	20	38	67	59	34	25	7	5	1	1					
Total.....	414	5,964	33.33	21	45	64	188	567	1,061	1,587	1,317	631	254	117	56	27	19	6	2	1	1	
<b>Lathe hands and operators, turret, male:</b>																						
California.....	15	96	36.39			2		4	10	23	33	15	4	3		2						
Connecticut.....	16	91	34.80			1		7	14	18	31	13	5	2								
Georgia.....	3	6	22.54			1	2	1	1			1										
Illinois.....	23	432	34.28		3	1	15	47	63	92	97	69	33	8	2	1	1					
Indiana.....	6	80	27.95		1	2	10	17	16	22	6	4	2									
Iowa.....	5	38	30.28				1	5	14	8	10											
Kansas.....	2	5	36.92																			
Kentucky.....	6	42	17.50		6	10	12	10	2	2												
Louisiana.....	2	2	29.55					1														
Maine.....	2	16	25.90				2	5	6	3												

<b>Maryland</b> .....	11	29.17	1			1	2	2	3	1					1					
<b>Massachusetts</b> .....	30	254	31.85		1	4	4	26	68	75	51	14	9		1	1				
<b>Michigan</b> .....	25	383	31.45	3	7	8	21	46	89	70	49	72	11	4	3					
<b>Minnesota</b> .....	3	9	28.12						4	2	1	2								
<b>Missouri</b> .....	11	40	26.17	1		1	2	17	7	4	7	1								
<b>New Hampshire</b> .....	7	23	33.35					5	8	1	4		2	2	1					
<b>New Jersey</b> .....	25	134	33.07		1	2	3	12	27	41	29	6	5	5	2	1				
<b>New York</b> .....	20	230	31.60	1		1	17	41	41	59	38	15	5	3	5	2	2			
<b>Ohio</b> .....	60	448	30.50	1	5	12	30	54	102	122	82	21	12	1	4	2				
<b>Oregon</b> .....	3	9	30.78			1				6	2									
<b>Pennsylvania</b> .....	40	569	30.49		4	5	22	98	147	131	117	35	5	3	2					
<b>Rhode Island</b> .....	11	33	27.96				2	9	12	6	3	1								
<b>Tennessee</b> .....	3	10	26.95				2	1	3	4										
<b>Texas</b> .....	6	41	30.17		1		1	7	9	10	11	1	1							
<b>Washington</b> .....	4	21	34.54						2	1	15	2								
<b>Wisconsin</b> .....	11	137	32.76	1	1	5	6	14	24	28	31	15	8	1	3					
<b>Total</b> .....	343	3,167	31.51	8	31	56	154	433	670	732	624	287	103	33	22	10	4			
<b>Machinists, male:</b>																				
Alabama	5	45	36.66		1			1	3	11	13	13	1	1		1				
California	24	239	37.26		1	2	6	4	8	44	112	35	14	6	5	1				
Connecticut	13	198	39.75	1	1	1	3	9	22	48	42	22	11	9	8	11	1	4	2	1
Georgia	8	67	31.73	1		1		6	15	23	16	2	2	1						
Illinois	28	356	38.38		3	3	4	27	81	98	73	38	20	7	2					
Indiana	12	147	30.95	3	1	2	3	19	30	47	23	11	7	1						
Iowa	8	40	32.04				1	2	13	10	10	4								
Kansas	5	28	35.83		1		1	1	2	2	13	6	1		1					
Kentucky	5	24	29.73				3	3	3	8	7									
Louisiana	5	53	34.50	1	3	4	2		4	3	25	9	2	1	3		1			
Maine	4	41	30.14		1			4	14	15	5	2								
Maryland	7	186	32.27	1	1	1	1	12	31	92	34	4	3	4	2					
Massachusetts	27	410	31.25	6	11	6	6	26	85	159	68	26	8	2	3	1		1	2	
Michigan	25	234	36.63	1	3	1	2	10	29	46	56	56	15	8	4	3				
Minnesota	6	27	31.47				1	2	6	12	6									
Missouri	13	123	34.78		3		1	7	22	25	34	24	4	1	2					
New Hampshire	8	117	35.73			1	1		11	51	27	17	9			1				
New Jersey	31	185	33.18	2	5	8	8	10	17	39	65	14	11	4				1		
New York	19	150	36.78			1	1	1	11	40	71	16	4	1	2	1	1			
Ohio	56	278	32.30	1	3	3	4	12	69	101	56	18	7	1	2	1				
Oregon	6	27	37.64				1			6	11	7	1	1						
Pennsylvania	31	296	36.35			2	6	15	30	90	79	33	16	6	11	2	4	1	1	
Rhode Island	13	168	28.15		2	3	5	27	72	44	11	2	1	1						
Tennessee	8	73	35.10	1		2	1	3	6	14	33	15	3	1						
Texas	9	79	35.17		3		2	3	10	6	29	9	4	1	1		1			1
Washington	7	61	32.97			3	1	2	4	27	18	3	3							
Wisconsin	12	137	39.40			1		6	7	19	49	24	11	11	6		2	1		
<b>Total</b> .....	395	3,794	34.68	18	40	48	63	189	551	1,063	1,011	445	176	81	57	24	12	8	4	2

<sup>2</sup> Including data for 1 establishment for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		Average actual earnings in 1 week	Number of employees whose earnings per week were—																		
	Estab-lish-ments	Em-ployees		Under \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
<b>Machinists' and toolmakers' help-ers, male:</b>																						
Alabama.....	3	14	\$16.51	1		3	10															
California.....	20	94	28.15			1	5	22	38	19	6	1	1	1								
Connecticut.....	9	162	28.77	1		5	12	62	21	20	16	13	7	3		1	1					
Georgia.....	4	7	13.22	1		3	3									1	1					
Illinois.....	17	146	26.71		7	1	13	28	44	38	13	2										
Indiana.....	6	22	22.60	1	1	2	1	6	7	4												
Iowa.....	5	11	20.68			1	2	7	1													
Kansas.....	8	56	22.67		1	3	16	22	7	4	1	2										
Kentucky.....	2	4	16.28		1		2	1														
Louisiana.....	2	24	17.45	3	2		10	6	1	2												
Maine.....	3	9	21.47				3	5	1													
Maryland.....	6	53	21.46			2	13	29	8	1												
Massachusetts.....	12	77	24.86			1	3	33	37	2			1									
Michigan.....	11	57	23.94		2	2	8	23	8	10	4											
Missouri.....	11	28	21.46	1			13	10		1	3											
New Jersey.....	23	73	26.82		2	1	8	13	32	11		1	5									
New York.....	21	96	25.60			3	7	26	49	9		1	1									
Ohio.....	34	209	24.68	1		6	20	83	71	17	8	2	1									
Oregon.....	5	14	26.55		1			3	4	6												
Pennsylvania.....	26	159	25.15	1	2	3	12	70	40	20	8	3										
Rhode Island.....	9	71	21.82			2	10	50	8					1								
Tennessee.....	4	15	15.47		2	6	4	3														
Texas.....	8	41	20.28	2	2	1	11	20	3	1	1											
Washington.....	5	18	27.52		1			2	10	5												
Wisconsin.....	13	205	25.81	2	3	8	22	73	54	17	16	5	5									
Total <sup>1</sup> .....	269	1,671	24.96	14	27	55	208	598	447	188	76	30	21	5		1	1					
<b>Milling-machine hands and opera-tors, male:</b>																						
Alabama.....	2	6	35.13						1	4	2	1										
California.....	13	57	38.75					1	4	12	22	9	2	4	2	1						
Connecticut.....	16	147	31.73			1	4	24	32	35	33	11	4	2	1							
Illinois.....	25	375	36.87	1	2	1	6	20	43	72	95	79	37	11	3	3		2				



<sup>1</sup> Including data for 2 establishments for which details are not shown.  
<sup>2</sup> Including data for 1 establishment for which details are not shown.  
<sup>3</sup> Including data for 3 establishments for which details are not shown.

TABLE E.—Average and classified actual earnings in one week of employees in 23 specified occupations, 1927, by sex and State—Continued

## MACHINE SHOPS—Continued

Occupation, sex, and State	Number of—		A-ver- age actual earn- ings in 1 week	Number of employees whose earnings per week were—																		
	Estab- lish- ments	Em- ployees		Un- der \$5	\$5 and under \$10	\$10 and under \$15	\$15 and under \$20	\$20 and under \$25	\$25 and under \$30	\$30 and under \$35	\$35 and under \$40	\$40 and under \$45	\$45 and under \$50	\$50 and under \$55	\$55 and under \$60	\$60 and under \$65	\$65 and under \$70	\$70 and under \$75	\$75 and under \$80	\$80 and under \$85	\$85 and under \$90	\$90 and over
Planer hands and operators, male:																						
Alabama.....	2	6	\$37.62			1			2		1	3		1								
California.....	14	41	36.60				2		12	13	7	4		1								
Connecticut.....	17	148	38.57	1			1	13	16	39	27	22	12	2	4	2	4		3			2
Georgia.....	2	10	16.59	2	1	1	1	3	1		1											
Illinois.....	23	135	40.44		1		3	6	11	17	26	27	26	6	4	5	2					1
Indiana.....	9	34	30.69			2	2	2	8	11	7	2										
Iowa.....	4	6	37.14							2	2											
Kansas.....	6	6	28.53					1	3	2												
Kentucky.....	4	13	29.30		1		1		4	4	3											
Maine.....	3	12	25.78		1		1	2	5	2	1											
Maryland.....	2	8	27.33					1	3	3		1										
Massachusetts.....	31	177	34.01			2	2	9	47	50	38	18	3	4	1	2		1				
Michigan.....	12	46	32.79		2		2	1	11	15	7	7										1
Minnesota.....	5	9	31.21						5	3		1										
Missouri.....	10	48	34.02				1	6	7	5	22	7										
New Hampshire.....	5	12	26.88			2	1		2	6	1											
New Jersey.....	23	71	37.40				1	2	8	14	23	11	6	5	1							
New York.....	21	174	37.40			2	1	9	14	62	37	19	13	3	7	5	2					
Ohio.....	68	462	36.42			6	7	35	66	111	99	52	41	22	10	4	5	3		1		
Oregon.....	3	4	34.56							2	2											
Pennsylvania.....	42	254	38.44	2	1	3	6	13	23	47	53	35	38	21	4	5		1	1	1		
Rhode Island.....	11	36	29.42			1	3	5	10	7	9		1									
Tennessee.....	3	6	30.13				1		1	2	2											
Texas.....	3	3	31.15							3												
Washington.....	4	7	36.90							1	5	1										
Wisconsin.....	11	87	35.04				4	7	16	23	13	13	6		2	3						
Total <sup>1</sup> .....	339	1,818	36.20	5	7	20	41	117	260	443	395	228	150	65	33	26	13	5	4	2		4
Screw-machine hands and oper- ators, male:																						
Alabama.....	2	4	32.43						1	1	2											
California.....	3	7	31.30				1	2			3	1										
Connecticut.....	9	69	30.82	1			3	7	15	24	17	2										
Illinois.....	18	116	33.96	1	1	1	4	13	19	24	28	13	6	3		1			1	1		



## APPENDIX

### DESCRIPTION OF FOUNDRY AND MACHINE SHOP OCCUPATIONS

#### FOUNDRY

*Chippers and rough grinders* cut or chip projecting points from the castings, using hammer and cold chisel or pneumatic chisel, or a rough-grinding machine.

*Core makers* make cores of sand and a liquid binder and possibly other substances, using a mold or core box to shape the cores. Cores are used in molds to make hollows in castings.

*Crane operators* operate power cranes used in moving molds, castings, ladles, etc., about the foundry.

*Cupola tenders* attend the cupola in which pig iron, scrap, or steel is melted, tap or open the cupola, and run the melted metal into ladles.

*Laborers* are common unskilled workers who carry cores, fill and empty ovens, attend fires, cut core wire, etc., in core-making room; assist the craneman; assist the cupola tender as stockers, chargers, firemen, and cleaners; assist the molder in handling sand and flasks; move castings; knock off sprues or gates from castings; clean castings by tumbling, or pickling; and do any other common unskilled work.

*Molders* make the molds for castings and pour melted metal from ladles into the molds. The molds are hollow impressions made in sand or loam by packing such sand around patterns and cores. The molder then removes the pattern and the sand retains its hollow shape without the support of the pattern. The molds are made in boxes or flasks. Cores are placed in the molds by the molders when hollow castings are to be made. Figures are shown in this report for three classes of molders, namely:

*Molders, hand, bench*, work by hand making small-sized molds.

*Molders, hand, floor*, work by hand on the floor of the foundry making larger-sized molds.

*Molders, machine*, use machines in making molds.

*Molders' helpers, floor*, help the floor molders in making molds.

*Pattern makers* make the patterns which are models constructed of wood or metal.

*Rough carpenters* make flasks for molds and do general rough repair work, or assist pattern makers.

*Sand blasters* use a sand-blast apparatus to clean the sand and scale from the surface of castings.

*Other employees* include all other skilled or semiskilled workers not properly included in any occupation above.

#### MACHINE SHOP

*Assemblers* assemble or bring together the various small parts, pieces, or units of which a machine or engine consists and fasten them together with nuts, bolts, and screws, thereby forming larger units or a complete final unit. The distinction between assemblers and fitters is that the assemblers do little or no filing, scraping, or other fitting.

*Blacksmiths* are skilled workers who shape light or medium-sized forgings and do general anvil work, using forge, anvil, and hammer.

*Blacksmiths' helpers* are persons of some degree of skill who assist blacksmiths and tool dressers in their work.

*Machine hands and operators*.—The word "machine" here technically means machine tool, which is any power-driven machine used in metal working. Hands and operators as used in connection with a machine are persons (a) who set up and operate that one particular machine, or (b) who operate that machine but do not set it up. There are so many degrees of proficiency between these two classes and they are so difficult of satisfactory separation that they are combined as machine hands and operators. These employees generally are not

**machinists** as they do not do the many kinds of work that can be done by a machinist. As a rule they are trained in the use of only one machine. An employee who worked on two or more machines during the pay period was classed as a machinist, provided he was an all-round machinist; *otherwise* he was classed as a machine hand and operator on the machine on which he worked the greater time.

Separate figures are given for machine hands and operators on certain of the more commonly used machines, namely, boring mill, drill press, grinding, lathe, milling, planer, screw buffer, and polisher; also a group of sheet-metal workers who operate punch presses, shears, and bending, flanging, and rolling machines. The machine hands and operators on less frequently used machines, as gear cutter, shaper, broacher, hobber, slotter, threader, automatic and special lathes, etc., are put in one group designated as "other precision machine hands and operators."

*Crane operators.* (See under Foundry.)

*Fitters and bench hands.*—Fitters do necessary chipping, filing, scraping, and reaming of machine parts to make correct mechanical adjustments in connection with fitting such parts together. Bench hands do similar work on parts to make them of proper shape and measurement but do not put the parts together.

*Laborers* truck or carry material about the shop or yard; give unskilled assistance to other employees; load and unload furnaces; do sand blasting; load and unload cars; sweep; rub machines; and do any other common unskilled work.

*Machinists* are persons who (a) repair or adjust one or more kinds of machines used in a machine shop; (b) set one or more kinds of automatic or semiautomatic machines without operating them; (c) set up and operate at least most of the kinds of machines usually found in machine shops. Each of these three groups may also do bench work or fitting. A man may have been qualified as an all-round machinist, but if he was actually employed as a machine hand during the pay period taken he is so classified in this study. In highly specialized shops few employees were found who could be properly classed as machinists. A man who both set up and operated only one machine or a man who operated one or even several machines but did not also set them up was classed as a machine hand and operator.

*Machinists' and toolmakers' helpers* are persons of some degree of skill who assist machinists and toolmakers in their work.

*Packers and craters* prepare and pack articles for shipment.

*Pattern makers.* (See under Foundry.)

*Toolmakers* are skilled men who make and repair tools, jigs, dies, and gauges.

*Other skilled occupations.*—This group includes all skilled workers not covered in other occupations. They are all put in this one class because no one occupation includes a sufficient number to warrant a separate tabulation. Some of the more important occupations in this group are in the forge shop and in the heat-treating department, as follows:

Hammersmiths set up dies and operate drop, steam, or Bradley hammers in the making of forgings, assisted by helpers who operate the furnace or forge and assist on the operation of the hammer.

Straighteners straighten castings or forgings by machine or by hand with a hammer.

Switchboard operators watch the temperature of the various furnaces in the heat-treating department as recorded by the switchboard and signal the furnace tender when temperature is too high or too low.

Furnace tenders regulate the temperature, open and close the furnace and supervise the loading of the furnace by laborers (furnace tenders' helpers and packers) with parts to be treated. In plants having no switchboard operator the furnace tender watches the switchboard.

Annealers, hardeners, and case hardeners operate small furnaces used in annealing or hardening small parts.

Also included in this group are inspectors of stock or of work, layers-out, markers, millwrights, pattern makers for machine work, sheet-metal workers, welders, and other skilled workers not elsewhere provided for.

*Other employees* include such semiskilled persons as are not provided for elsewhere.



## LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

*The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of periodic surveys of the bureau only the latest bulletin on any one subject is here listed.*

*A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus (\*) are out of print.*

### **Conciliation and Arbitration (including strikes and lockouts).**

- \*No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
- \*No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
- No. 139. Michigan copper district strike. [1914.]
- No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
- No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
- No. 191. Collective bargaining in the anthracite coal industry. [1916.]
- \*No. 198. Collective agreements in the men's clothing industry. [1916.]
- No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
- No. 255. Joint industrial councils in Great Britain. [1919.]
- No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
- No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
- No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
- No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
- No. 402. Collective bargaining by actors. [1926.]
- No. 468. Trade agreements, 1927.

### **Cooperation.**

- No. 313. Consumers' cooperative societies in the United States in 1920.
- No. 314. Cooperative credit societies in America and in foreign countries. [1922.]
- No. 437. Cooperative movement in the United States in 1925 (other than agricultural).

### **Employment and Unemployment.**

- \*No. 109. Statistics of unemployment and the work of employment offices in the United States. [1913.]
- No. 172. Unemployment in New York City, N. Y. [1915.]
- \*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
- \*No. 195. Unemployment in the United States. [1916.]
- No. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, Minn., January 19 and 20, 1916.
- \*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
- No. 206. The British system of labor exchanges. [1916.]
- \*No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- No. 235. Employment system of the Lake Carriers' Association. [1918.]
- \*No. 241. Public employment offices in the United States. [1918.]
- No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.
- No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
- No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.

### **Foreign Labor Laws.**

- \*No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]

### **Housing.**

- \*No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
- No. 263. Housing by employers in the United States. [1920.]
- No. 295. Building operations in representative cities in 1920.
- No. 368. Building permits in the principal cities of the United States in [1921 to] 1923.
- No. 424. Building permits in the principal cities of the United States in [1924 and] 1925.
- No. 449. Building permits in the principal cities of the United States in [1925 and] 1926.
- No. 469. Building permits in the principal cities of the United States in [1926 and] 1927. (In press.)

### **Industrial Accidents and Hygiene.**

- \*No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
- No. 120. Hygiene of the painters' trade. [1913.]
- \*No. 127. Dangers to workers from dusts and fumes, and methods of protection. [1913.]
- \*No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
- \*No. 157. Industrial accident statistics. [1915.]
- \*No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
- \*No. 179. Industrial poisons used in the rubber industry. [1915.]
- No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
- \*No. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [1916.]
- \*No. 207. Causes of death by occupation. [1917.]
- \*No. 209. Hygiene of the printing trades. [1917.]
- \*No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
- No. 221. Hours, fatigue, and health in British munition factories. [1917.]
- No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
- \*No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
- \*No. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
- No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers Committee. [1919.]
- \*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
- No. 256. Accidents and accident prevention in machine building. [1919.]
- No. 267. Anthrax as an occupational disease. [1920.]
- No. 276. Standardization of industrial accident statistics. [1920.]
- No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
- No. 291. Carbon-monoxide poisoning. [1921.]
- No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
- No. 298. Causes and prevention of accidents in the iron and steel industry, 1910-1919.
- No. 306. Occupational hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
- No. 339. Statistics of industrial accidents in the United States. [1923.]
- No. 392. Survey of hygienic conditions in the printing trades. [1925.]
- No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
- No. 425. Record of industrial accidents in the United States to 1925.
- No. 426. Deaths from lead poisoning. [1927.]
- No. 427. Health survey of the printing trades, 1922 to 1925.
- No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14-16, 1926.

### **Industrial Relations and Labor Conditions.**

- No. 237. Industrial unrest in Great Britain. [1917.]
- No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
- No. 349. Industrial relations in the West Coast lumber industry. [1923.]
- No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
- No. 380. Postwar labor conditions in Germany. [1925.]
- No. 383. Works council movement in Germany. [1925.]
- No. 384. Labor conditions in the shoe industry in Massachusetts, 1920-1924.
- No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]

### **Labor Laws of the United States (including decisions of courts relating to labor).**

- No. 211. Labor laws and their administration in the Pacific States. [1917.]
- No. 229. Wage-payment legislation in the United States. [1917.]
- No. 285. Minimum-wage laws of the United States: Construction and operation. [1921.]
- No. 321. Labor laws that have been declared unconstitutional. [1922.]
- No. 322. Kansas Court of Industrial Relations. [1923.]
- No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
- No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]
- No. 408. Laws relating to payment of wages. [1926.]
- No. 434. Labor legislation of 1926.
- No. 444. Decisions of courts and opinions affecting labor, 1926.
- No. 470. Labor legislation of 1927. (In press.)



**Proceedings of Annual Conventions of the Association of Governmental Labor Officials of the United States and Canada.**

- \*No. 266. Seventh, Seattle, Wash., July 12-15, 1920.
- No. 307. Eighth, New Orleans, La., May 2-6, 1921.
- No. 323. Ninth, Harrisburg, Pa., May 22-26, 1922.
- No. 352. Tenth, Richmond, Va., May 1-4, 1923.
- No. 389. Eleventh, Chicago, Ill., May 19-23, 1924.
- No. 411. Twelfth, Salt Lake City, Utah, August 13-15, 1925.
- No. 429. Thirteenth, Columbus, Ohio, June 7-10, 1926.
- No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927.

**Proceedings of Annual Meetings of the International Association of Industrial Accident Boards and Commissions.**

- No. 210. Third, Columbus, Ohio, April 25-28, 1916.
- No. 248. Fourth, Boston, Mass., August 21-25, 1917.
- No. 264. Fifth, Madison, Wis., September 24-27, 1918.
- \*No. 273. Sixth, Toronto, Canada, September 23-26, 1919.
- No. 281. Seventh, San Francisco, Calif., September 20-24, 1920.
- No. 304. Eighth, Chicago, Ill., September 19-23, 1921.
- No. 333. Ninth, Baltimore, Md., October 9-13, 1922.
- No. 359. Tenth, St. Paul, Minn., September 24-26, 1923.
- No. 385. Eleventh, Halifax, Nova Scotia, August 26-28, 1924.
- No. 395. Index to proceedings, 1914-1924.
- No. 406. Twelfth, Salt Lake City, Utah, August 17-20, 1925.
- No. 432. Thirteenth, Hartford, Conn., September 14-17, 1926.
- No. 456. Fourteenth, Atlanta, Ga., September 27-29, 1927.

**Proceedings of Annual Meetings of the International Association of Public Employment Services.**

- No. 192. First, Chicago, December 19 and 20, 1913; second, Indianapolis, September 24 and 25, 1914; third, Detroit, July 1 and 2, 1915.
- No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
- No. 311. Ninth, Buffalo, N. Y., September 7-9, 1921.
- No. 337. Tenth, Washington, D. C., September 11-13, 1922.
- No. 355. Eleventh, Toronto, Canada, September 4-7, 1923.
- No. 400. Twelfth, Chicago, Ill., May 19-23, 1924.
- No. 414. Thirteenth, Rochester, N. Y., September 15-17, 1925.

**Productivity of Labor.**

- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
- No. 412. Wages, hours, and productivity in the pottery industry, 1925.
- No. 441. Productivity of labor in the glass industry. [1927.]

**Retail prices and Cost of Living.**

- \*No. 121. Sugar prices, from refiner to consumer. [1913.]
- \*No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
- \*No. 164. Butter prices, from producer to consumer. [1914.]
- No. 170. Foreign food prices as affected by the war. [1915.]
- No. 357. Cost of living in the United States. [1924.]
- No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
- No. 464. Retail prices, 1890 to 1927. (In press.)

**Safety Codes.**

- \*No. 331. Code of lighting: Factories, mills, and other work places.
- No. 336. Safety code for the protection of industrial workers in foundries.
- No. 350. Specifications of laboratory tests for approval of electric headlighting devices for motor vehicles.
- No. 351. Safety code for the construction, care, and use of ladders.
- No. 375. Safety code for laundry machinery and operations.
- No. 378. Safety code for woodworking plants.
- No. 382. Code of lighting school buildings.
- No. 410. Safety code for paper and pulp mills.
- No. 430. Safety code for power presses and foot and hand presses.
- No. 433. Safety codes for the prevention of dust explosions.
- No. 436. Safety code for the use, care, and protection of abrasive wheels.
- No. 447. Safety code for rubber mills and calenders.
- No. 451. Safety code for forging and hot-metal stamping.
- No. 463. Safety code for mechanical power-transmission apparatus—first revision.

#### **Vocational and Workers' Education.**

- \*No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]
- \*No. 162. Vocational education survey of Richmond, Va. [1915.]
- \*No. 199. Vocational education survey of Minneapolis, Minn. [1917.]
- No. 271. Adult working-class education in Great Britain and the United States. [1920.]
- No. 459. Apprenticeship in building construction. [1928.]

#### **Wages and Hours of Labor.**

- \*No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
- \*No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
- No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- \*No. 190. Wages and hours of labor in the cotton, woolen and silk industries, 1907 to 1914.
- No. 204. Street-railway employment in the United States. [1917.]
- No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- No. 265. Industrial survey in selected industries in the United States, 1919.
- No. 297. Wages and hours of labor in the petroleum industry, 1920.
- No. 356. Productivity costs in the common-brick industry. [1924.]
- No. 358. Wages and hours of labor in the automobile-tire industry, 1923.
- No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
- No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
- No. 394. Wages and hours of labor in metalliferous mines, 1924.
- No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1925.]
- No. 412. Wages, hours, and productivity in the pottery industry, 1925.
- No. 413. Wages and hours of labor in the lumber industry in the United States, 1925.
- No. 416. Hours and earnings in anthracite and bituminous coal mining, 1923 and 1924.
- No. 421. Wages and hours of labor in the slaughtering and meat-packing industry, 1925.
- No. 422. Wages and hours of labor in foundries and machine shops, 1925.
- No. 435. Wages and hours of labor in the men's clothing industry, 1911 to 1926.
- No. 438. Wages and hours of labor in the motor-vehicle industry, 1925.
- No. 442. Wages and hours of labor in the iron and steel industry, 1907 to 1926.
- No. 443. Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1926.
- No. 446. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1926.
- No. 450. Wages and hours of labor in the boot and shoe industry, 1907 to 1926.
- No. 452. Wages and hours of labor in the hosiery and underwear industries, 1907 to 1926.
- No. 454. Hours and earnings in bituminous-coal mining, 1922, 1924, and 1926.
- No. 457. Union scales of wages and hours of labor, May 15, 1927.

#### **Welfare Work.**

- \*No. 123. Employers' welfare work. [1913.]
- No. 222. Welfare work in British munitions factories. [1917.]
- \*No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]

#### **Wholesale Prices.**

- No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
- No. 440. Wholesale prices, 1890 to 1926.
- No. 453. Revised index numbers of wholesale prices, 1923 to July, 1927.

#### **Women and Children in Industry.**

- No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
- \*No. 117. Prohibition of night work of young persons. [1913.]
- No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
- No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
- \*No. 122. Employment of women in power laundries in Milwaukee. [1913.]
- No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
- \*No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
- \*No. 175. Summary of the report on conditions of woman and child wage earners in the United States. [1915.]
- \*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
- \*No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
- \*No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
- No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
- No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
- \*No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1918.]
- No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
- No. 253. Women in the lead industries. [1919.]

**Workmen's Insurance and Compensation (including laws relating thereto).**

- No. 101. Care of tuberculous wage earners in Germany. [1912.]  
\*No. 102. British national insurance act, 1911.  
No. 103. Sickness and accident insurance law of Switzerland. [1912.]  
No. 107. Law relating to insurance of salaried employees in Germany. [1913.]  
\*No. 155. Compensation for accidents to employees of the United States. [1914.]  
No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D. C., December 5-9, 1916.  
No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.  
No. 301. Comparison of workmen's compensation insurance and administration. [1922.]  
No. 312. National health insurance in Great Britain, 1911 to 1921.  
No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.  
No. 423. Workmen's compensation legislation of the United States and Canada as of July 1, 1926.

**Miscellaneous Series.**

- \*No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.  
No. 208. Profit sharing in the United States. [1916.]  
No. 242. Food situation in central Europe, 1917.  
No. 254. International labor legislation and the society of nations. [1919.]  
No. 268. Historical survey of international action affecting labor. [1920.]  
No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]  
No. 299. Personnel research agencies: A guide to organized research in employment management, industrial relations, training, and working conditions. [1921.]  
No. 319. The Bureau of Labor Statistics: Its history, activities, and organization. [1922.]  
No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics. [1923.]  
No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]  
No. 346. Humanity in government. [1923.]  
No. 372. Convict labor in 1923.  
No. 386. Cost of American almshouses. [1925.]  
No. 398. Growth of legal-aid work in the United States. [1926.]  
No. 401. Family allowances in foreign countries. [1926.]  
No. 420. Handbook of American trade-unions. [1926.]  
No. 439. Handbook of labor statistics, 1924 to 1926.  
No. 458. Health and recreation activities in industrial establishments, 1926.  
No. 461. Labor organizations in Chile. [1928.]  
No. 462. Park recreation areas in the United States. [1928.]  
No. 465. Activities of American trade-unions. [1928.]  
No. 466. Settlement for accidents to American seamen. [1928.]  
No. 467. Minimum wage legislation in various countries. [1928.]  
No. 468. Trade agreements 1927.

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